LG

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WASHING MACHINE SERVICE MANUAL

⚠ CAUTION

READ THIS MANUAL CAREFULLY TO DIAGNOSE
PROBLEMS CORRECTLY BEFORE SERVICING THE UNIT.

MODEL : WM2411HW/WM2011H*/WM1811CW
WM2432HW/WM2032H*/WM1832CW
WM0532HW/WD-10210BD/WD-12210(5)BD
WM2444H*M/WM2442H*/WM2042CW
WM0642H*

LG Electronics Inc.

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1. SPECIFICATIONS

ITEM		WM2411HW WM2432HW WD-12210(5)BD	WM2011HS / WM2011HW WM2032HS / WM2032HW WM0532HW / WD-10210BD	WM1811CW WM1832CW
POWER SUPPLY		120V ~ 60Hz		
PRODUCT WEIGHT		190 lbs. (86 kg)		
ELECTRIC POWER CONSUMPTION	WASHING	280W		235W
	DRAIN MOTOR	80W		
	WASH HEATER	1000W		–
REVOLUTION SPEED	WASH	42 rpm		
	SPIN	0-1200 rpm	0-1000 rpm	0-900 rpm
CYCLES		9	7	5
WASH / RINSE TEMPERATURES		6	5	4
SPIN SPEEDS		6	5	5
OPTIONS		Prewash, Stain Cycle, Quick Cycle, Extra Rinse, Rinse+Spin, Delay Wash		
CUSTOM PROGRAM		Incorporated		
WATER CIRCULATION		Incorporated		–
OPERATIONAL WATER PRESSURE		4.5–145 psi (30-1000 kPa)		
CONTROL TYPE		Electronic		
WASH CAPACITY		3.22 cu.ft (3.72 cu.ft.IEC)		
DIMENSIONS		27”(W) X 29 –1/2”(D) X 42 –3/4”(H), 49 –4/5”(D, door open)		
DELAY WASH		up to 19 hours	up to 12 hours	up to 9 hours
DOOR SWITCH TYPE		PTC + Solenoid		
WATER LEVEL		7 steps (by sensor)		
LAUNDRY LOAD SENSING		Incorporated		
ERROR DIAGNOSIS		Incorporated		
AUTO POWER OFF		Incorporated		
CHILD LOCK		Incorporated		
RLM ENABLE		–		

ITEM		WM2444H*M	WM2442H*/WM0642H*	WM2042CW
POWER SUPPLY		120V ~ 60Hz		
PRODUCT WEIGHT		190 lbs. (86 kg)		
ELECTRIC POWER CONSUMPTION	WASHING	280W		235W
	DRAIN MOTOR	80W		
	WASH HEATER	1000W		–
REVOLUTION SPEED	WASH	42 rpm		
	SPIN	0-1200 rpm		0-1000 rpm
CYCLES		7		5
WASH / RINSE TEMPERATURES		6		4
SPIN SPEEDS		6		5
OPTIONS		Prewash, Stain Cycle, Quick Cycle, Extra Rinse, Rinse+Spin, Delay Wash		
CUSTOM PROGRAM		Incorporated		
WATER CIRCULATION		Incorporated		–
OPERATIONAL WATER PRESSURE		4.5–145 psi (30-1000 kPa)		
CONTROL TYPE		Electronic		
WASH CAPACITY		3.32 cu.ft (3.83 cu.ft.IEC)		
DIMENSIONS		27”(W) X 29 –1/2”(D) X 44”(H), 49 –4/5”(D, door open)		
DELAY WASH		up to 12 hours		up to 9 hours
DOOR SWITCH TYPE		PTC + Solenoid		
WATER LEVEL		10 steps (by sensor)		
LAUNDRY LOAD SENSING		Incorporated		
ERROR DIAGNOSIS		Incorporated		
AUTO POWER OFF		Incorporated		
CHILD LOCK		Incorporated		
RLM ENABLE		Incorporated	–	

2. FEATURES & TECHNICAL EXPLANATION

2-1.FEATURES

■ Direct Drive System

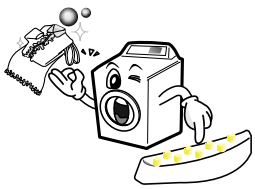
The advanced Brushless DC motor directly drives the drum without belt and pulley.

■ Tilted Drum and Extra Large Door Opening

The tilted drum and extra large door opening make it possible to load and unload easily.

■ Water Circulation

Spray detergent solution and water onto the load repeatedly. Clothes are soaked more quickly and thoroughly during the wash cycle. Detergent suds are eliminated more easily by the water shower during rinse cycle. The water circulation system uses both water and detergent more efficiently.

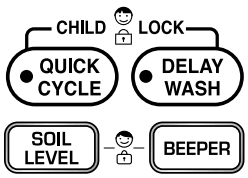


■ RollerJets

The washing ball enhances wash performance and reduces damage to clothing. The jets spray and help tumble clothes to enhance washing performance while maintaining fabric care.

■ Built-in Heater

The internal heater automatically heats the water to the optimum temperature on selected cycles.



■ Child Lock

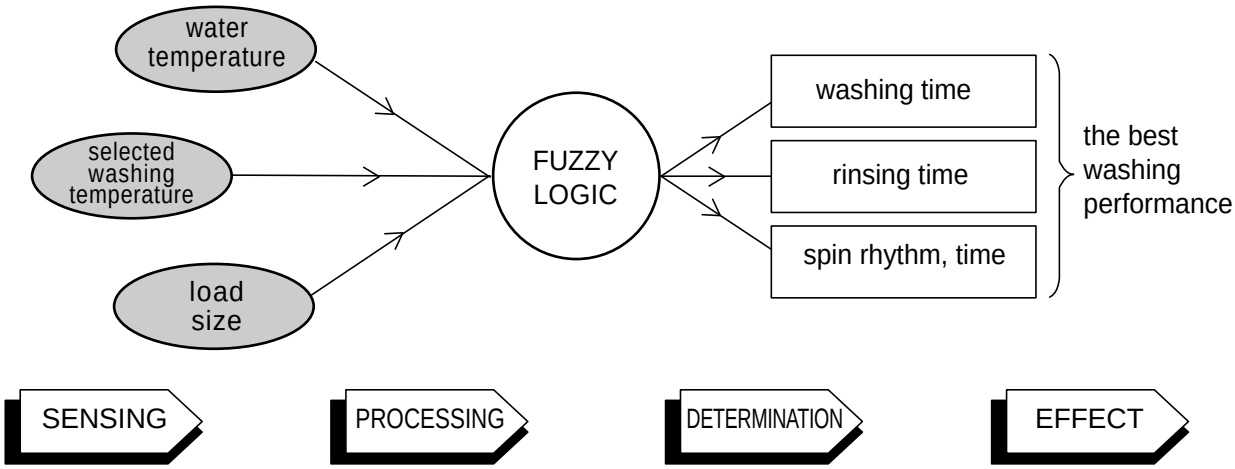
The Child lock feature prevents children from pressing any buttons to change the settings during operation.

■ Using the RLM (Remote Laundry Monitor)

The RLM monitors status of your washer and/or dryer. You can plug the display unit into any power outlet in your home.
The RLM Display Unit can be purchased separately for this washer.

2-2.FUZZY LOGIC WASHING TIME OPTIMIZATION

To get the best washing performance, optimal time is determined by the water temperature, the selected washing temperature, and the size of the load.



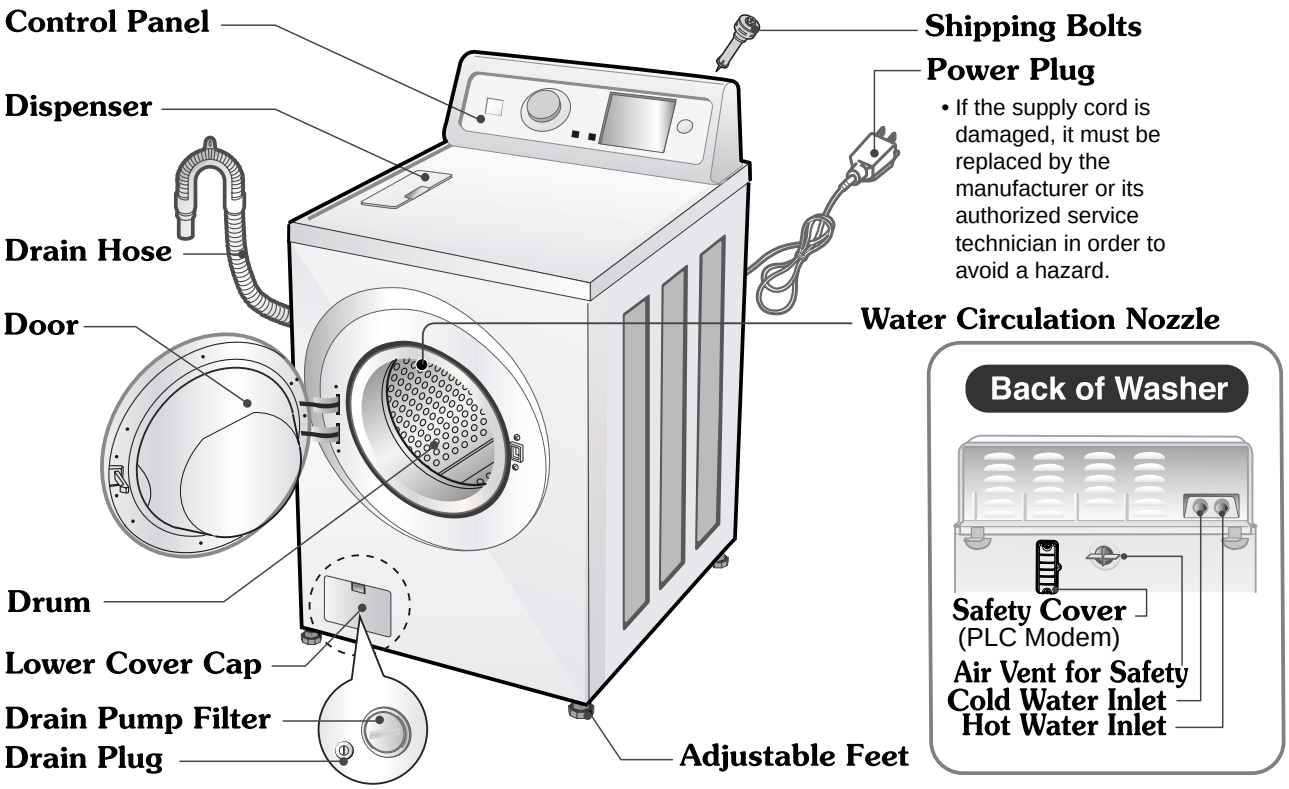
2-3.WATER LEVEL CONTROL

- This model incorporates a pressure sensor which can sense the water level in the tub.
- The water supply is stopped when the water level reaches the preset level, the washing program then proceeds.
- Spinning does not proceed until the water in the tub drains to a certain level.

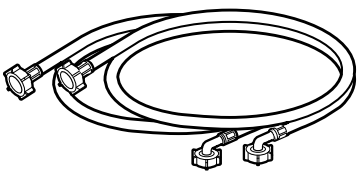
2-4.DOOR CONTROL

- The door can be opened by pulling the door handle whenever washer is not in operation.
- When the cycle is completed, the DOOR LOCKED light will turn off.
- If a power failure has occurred while in operation, the door will lock for 5 minutes.
- Clicking sounds can be heard when the door is locked / unlocked.

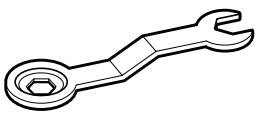
3. PARTS IDENTIFICATION



■ACCESSORIES



Hot/Cold (1 each) Hose



Wrench

Tie strap

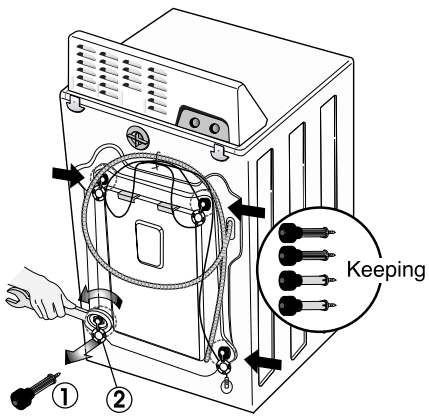
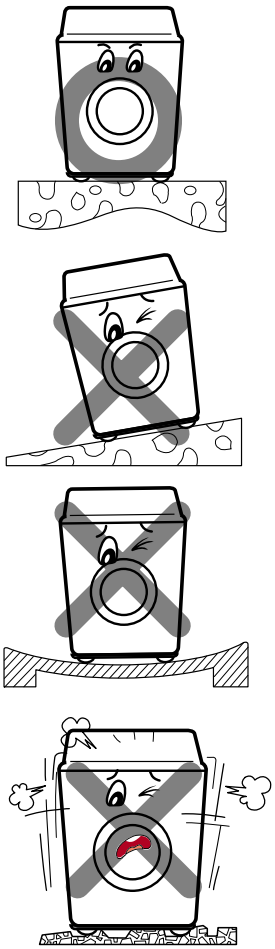
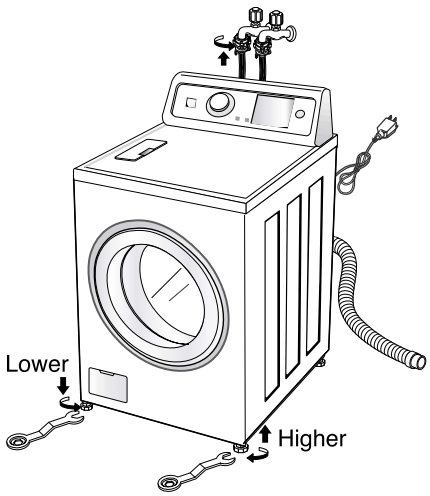
to secure drain hose to standpipe, inlet hose, or laundry tub

4. INSTALLATION

1 Before servicing, ask the customer what the trouble is.
2 Check the setup (power supply is 120V AC, remove the transit bolts....).
3 Check with the troubleshooting guide.
4 Plan your service method by referring to the disassembly instructions.
5 Service the unit.
6 After servicing, operate the appliance to see whether it functions correctly.

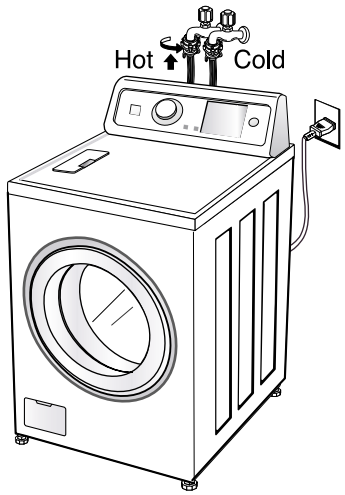
■ STANDARD INSTALLATION

The appliance should be installed as follows:

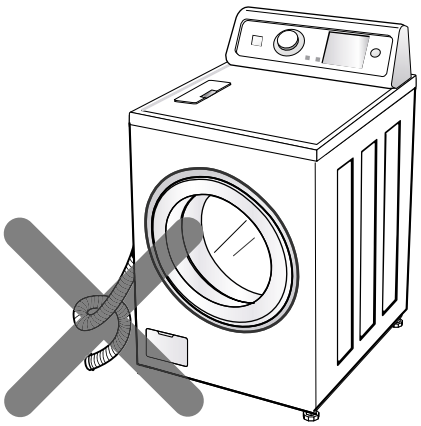
REMOVE THE TRANSIT BOLTS	INSTALL THE APPLIANCE ON A FLAT AND FIRM SURFACE	ADJUST THE LEVELING
• Remove the transit bolts (4 EA: ①) with the supplied wrench. • Keep the transit bolts and spanner for future use. • Insert the 4 caps (provided) into the hole. 		• Turn the leveling feet to adjust the appliance horizontally.  • The appliance goes up by rotating the feet clockwise. • The appliance come down by rotating the feet counterclockwise.

■ HOW TO CONNECT THE INLET HOSE

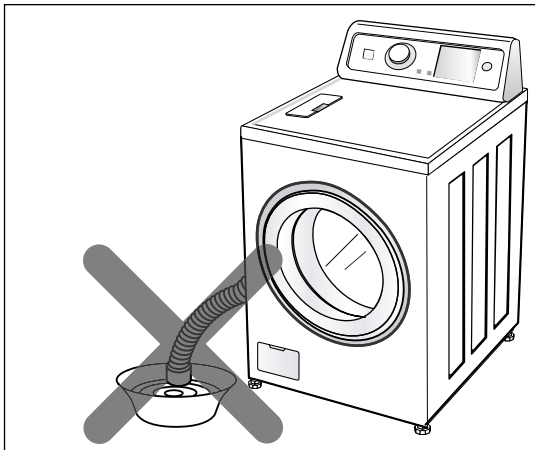
- Verify that the rubber washer is inside of the valve connector.
- Connect the inlet hose firmly to prevent leaks.



■ CONNECT THE DRAIN HOSE



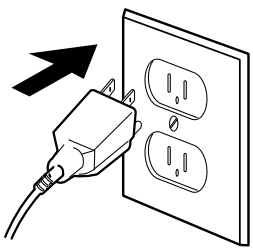
· Make sure that the hose is not twisted.



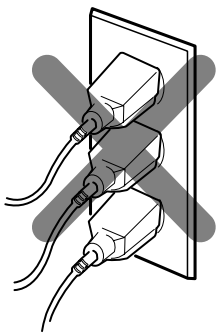
· Avoid submerging the end of the hose.

※ The end of the drain hose should be placed less than 96” from the floor.

■ CONNECT POWER PLUG



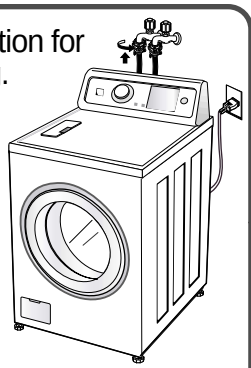
· Connect the power plug to the wall outlet.



· Avoid connecting several electric devices, as doing so may cause a fire.

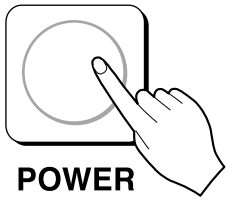
7 TEST OPERATION

1 Preparation for washing.

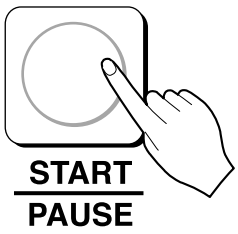


- Connect the power plug to the outlet.
- Connect the inlet hose.

2 Press the POWER button.

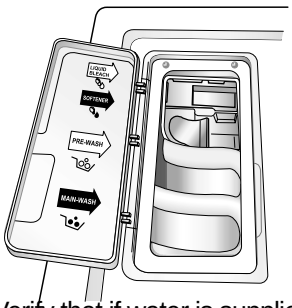


3 Press the Start/Pause button.



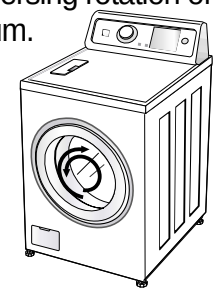
- Listen for clicking sounds to determine if the door has locked.

4 Check the water supply.



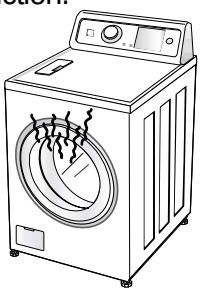
- Verify that if water is supplied through the detergent dispenser.

5 Check the automatic reversing rotation of the drum.



- Make sure that the drum rotates clockwise and counterclockwise.

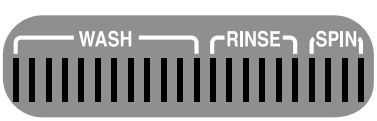
6 Check the water heating function.



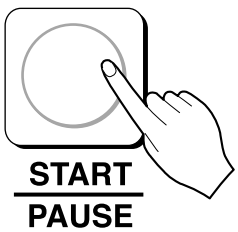
- Press the WASH / RINSE button and the present temperature will be displayed.

7 Check the drain and spin functions.

- Press the POWER button twice to restart.
- Press the SPIN SPEED button.
- Press the START / PAUSE button.
- Check the drain and spin functions.

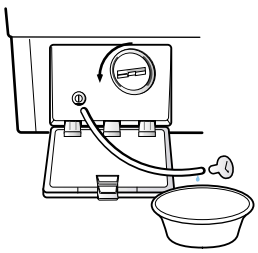


8 Press the START / PAUSE button.



- Listen for clicking sounds to determine if the door is unlocking.

9 Water removal



- If SVC is required, remove the remaining water in the tub, by pulling out the drain plug.

5. OPERATION

• POWER button

• Use this button to turn the power On / Off.

• DOOR LOCKED lamp

• Lights whenever the door is locked.

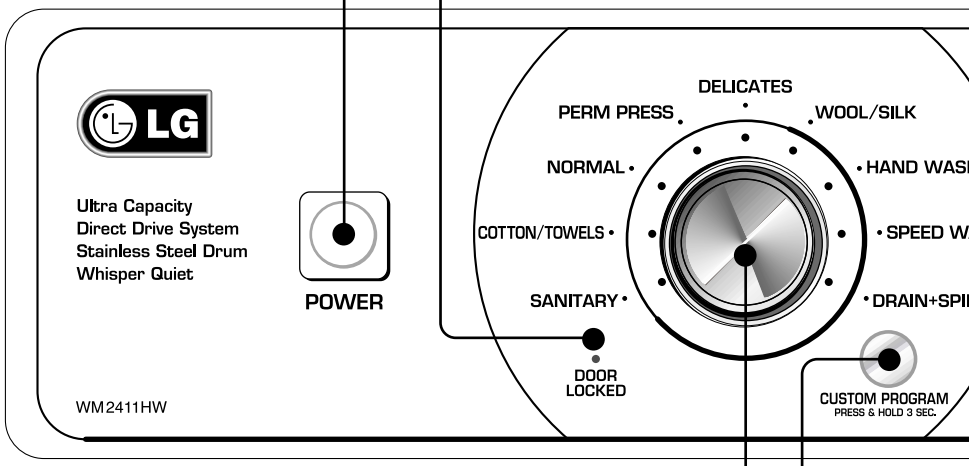
• The door can be unlocked by pressing the Start / Pause button to stop the washer.

• BEEPER bu

• Choose High / Low

• CYCLE SELECTOR knob

• Rotate the Cycle selector knob to select the cycle designed for different types of fabric and soil levels.



• CUSTOM PROGRAM button

• Allows you to store a customized wash cycle for future use.

• To create a Custom Program :

1) Select a cycle.
2) Select the other desired Wash / Rinse Temp., Spin Speed, Soil Level.
3) Select the desired Options.
4) Press and hold the Custom Program button for 3 seconds (2 beep sounds).
5) Press the Start / Pause button.
The Custom Program is now stored for future use.

• To reuse the program, select Custom Program and press Start / Pause.

• WASH / RINSE temp. SPIN SPEED, SOIL LEVE

• Select a water temperature based o load you are washing.

• To change the spin speed, select th Spin Speed button until the desired displayed.

• To change the soil level, select the S button until the desired setting is dis

utton

/ Off.

• STATUS INDICATOR

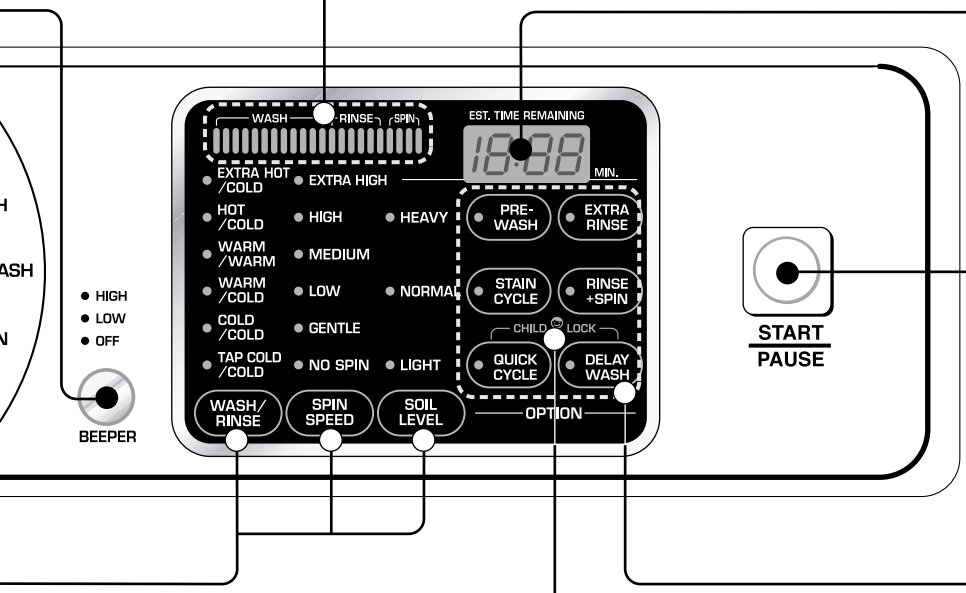
• These lights show elapsed time of the selected cycle.

• EST.TIME REMAINING

• This display shows :

a) the estimated time remaining in the cycle when operating.

b) an error code when an error has been detected.



• START/PAUSE button

• Use this button to Start / Stop the washer.

EL button

n the type of

e
setting is

Soil Level
splayed.

• CHILD LOCK

• Use this option to prevent unwanted use of the washer. Press and hold Quick Cycle and Delay Wash button for 3 seconds to lock / unlock control.

• When Child lock is set, "CL" blinks and all buttons are disabled but the Power button. You can thereby lock the washer while it is operating.

• OPTION button

• Prewash : Use this option for loads that need pretreatment. It adds 16 minutes prewash and drain.

• Stain Cycle : Adds time to the wash and rinse cycles for better stain removal. Automatically provides a rinse.

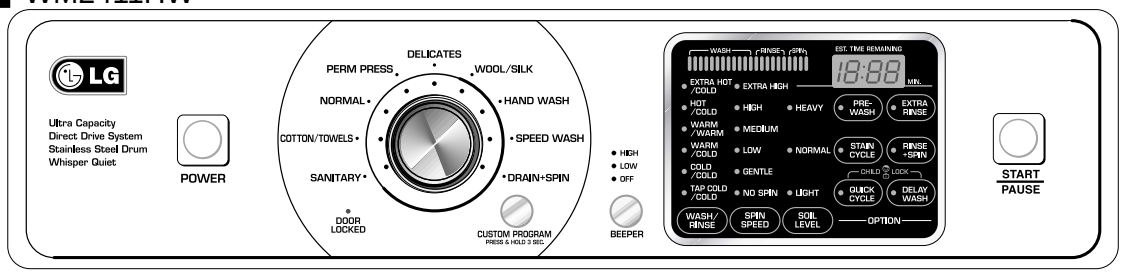
• Quick Cycle : The Quick cycle offers a quick cycle time.

• Extra Rinse : This option provides an additional rinse cycle.

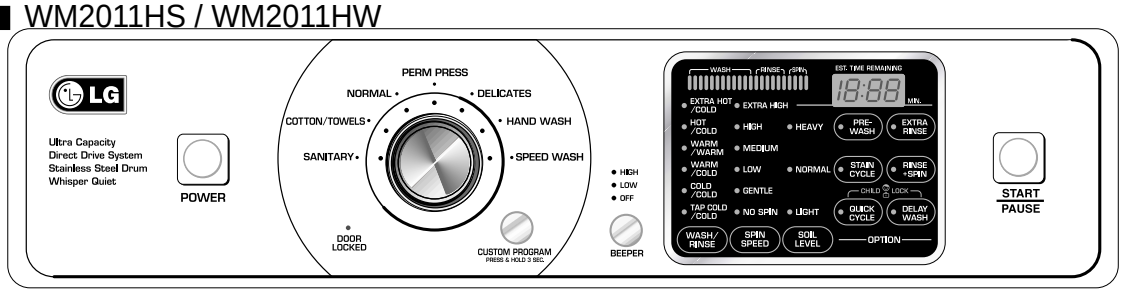
• Rinse+Spin : Use this option to rinse and then spin.

• Delay Wash : Allows the start of any cycle to be delayed for 1~19(12, 9) hours.

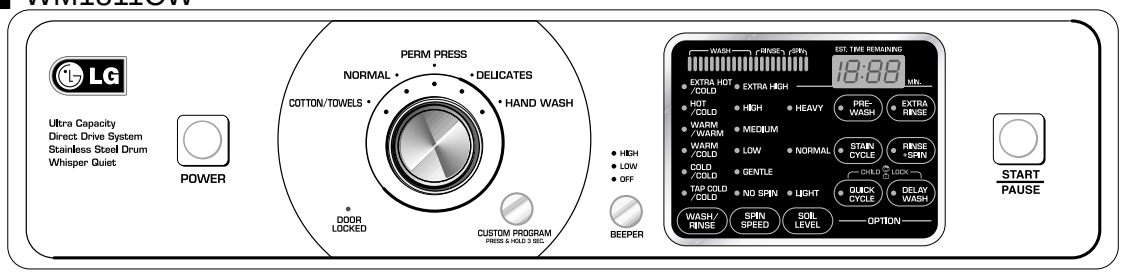
■ WM2411HW



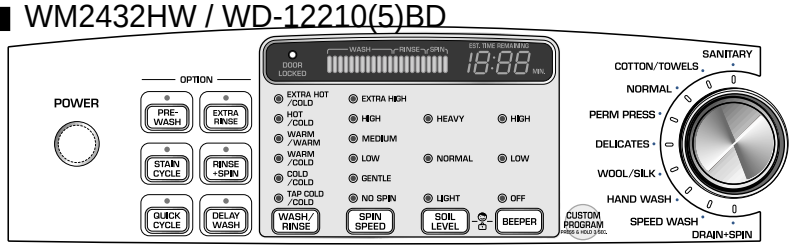
■ WM2011HS / WM2011HW



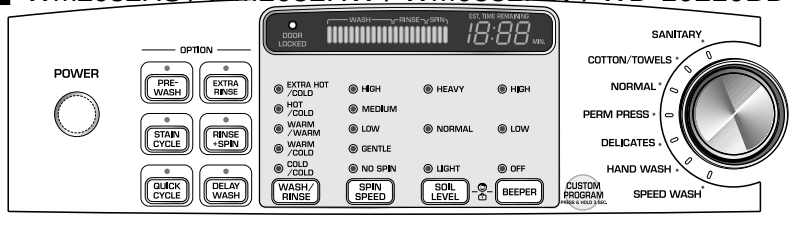
■ WM1811CW



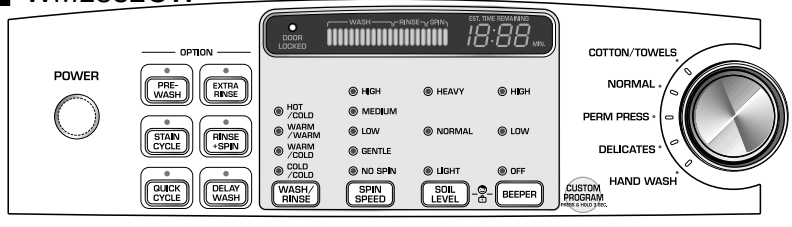
■ WM2432HW / WD-12210(5)BD



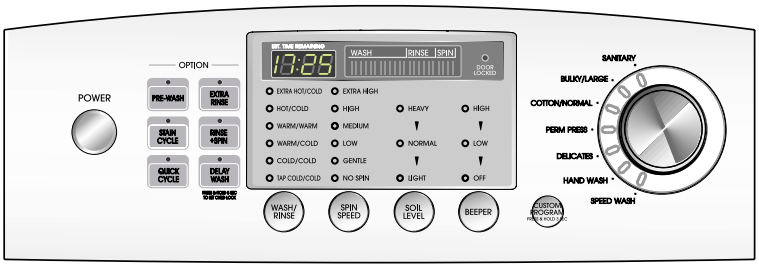
■ WM2032HS / WM2032HW / WM0532HW / WD-10210BD



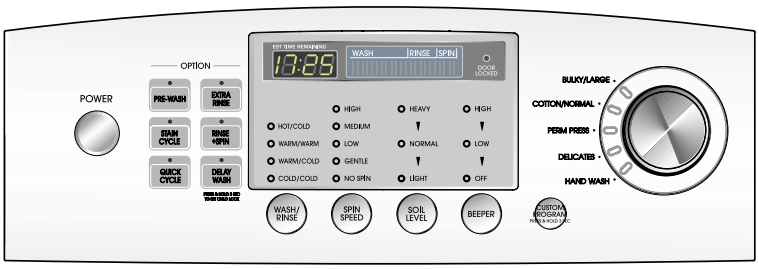
■ WM1832CW



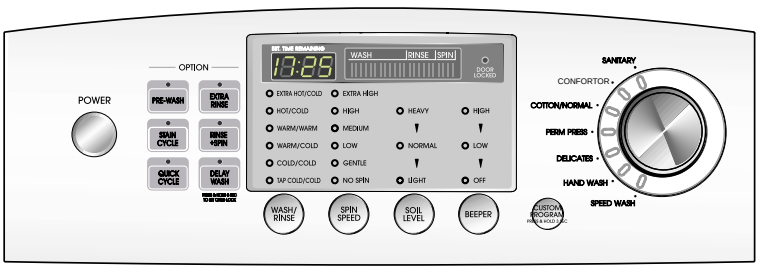
■ WM2444H*M/WM2442H*



■ WM2042CW

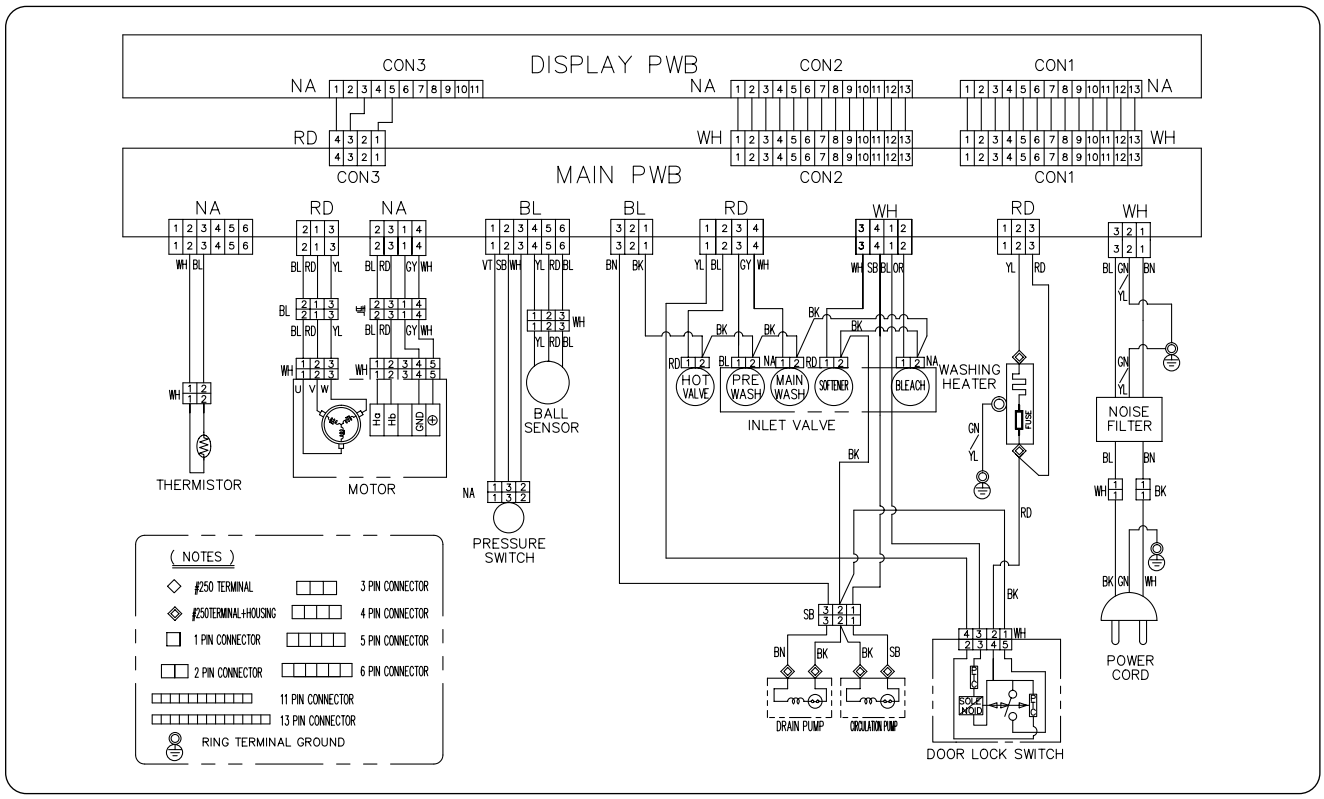


■ WM0642H*

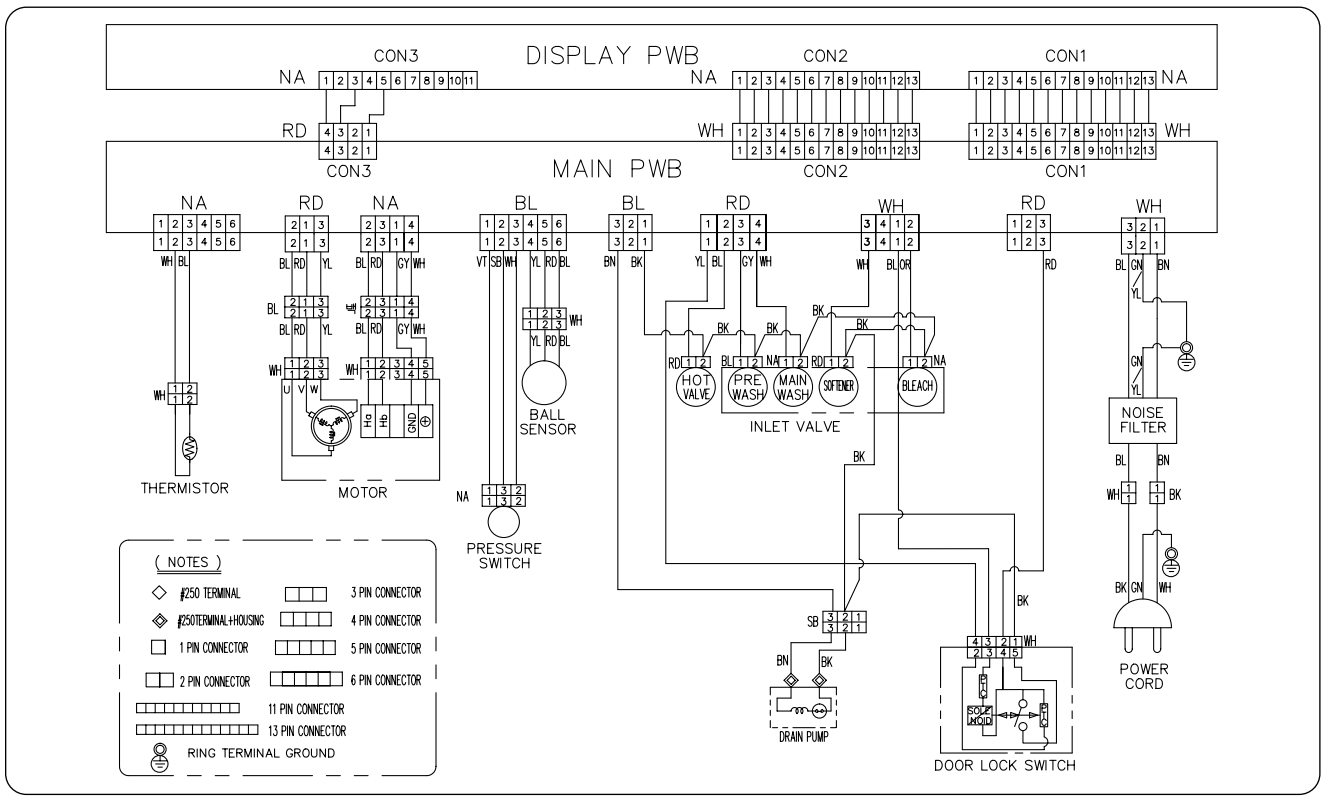


6. WIRING DIAGRAM / PROGRAM CHART

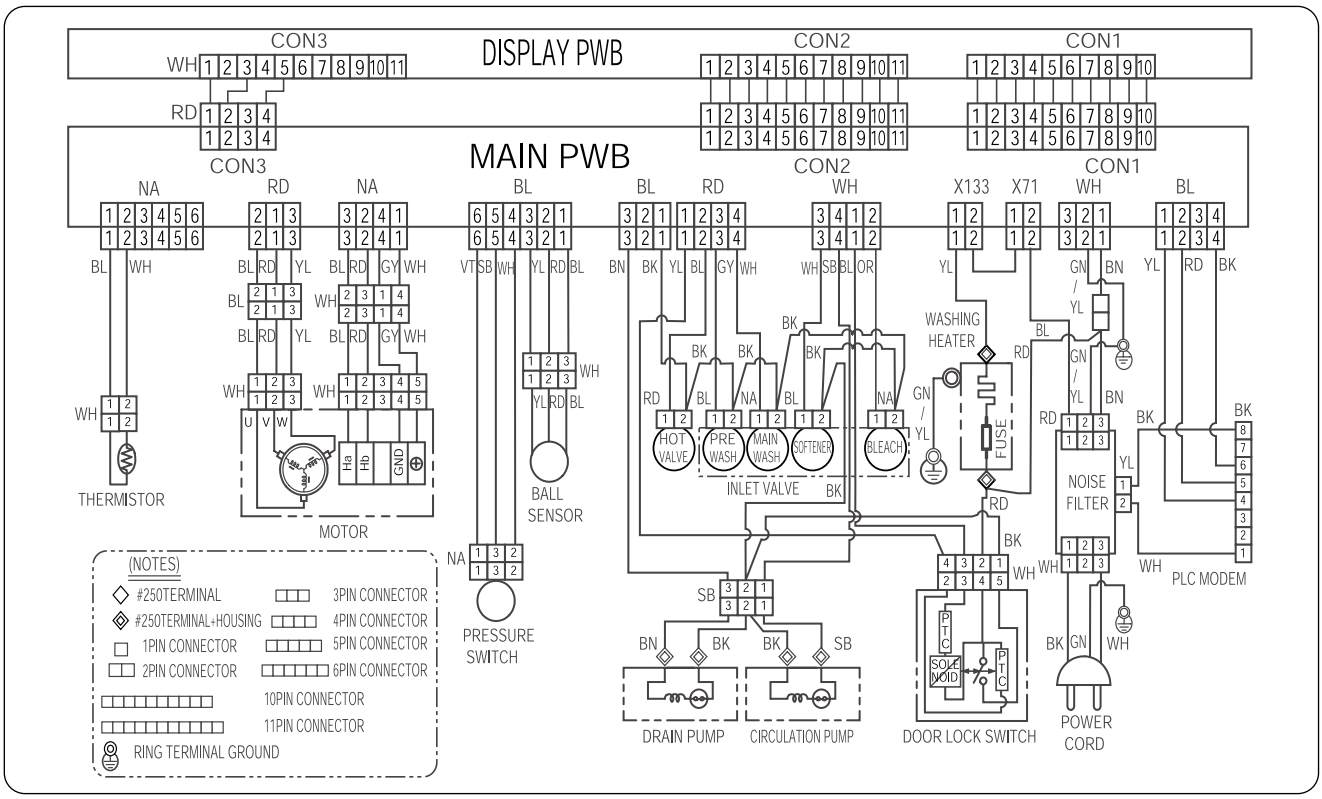
■ WM2411HW / WM2011HS / WM2011HW / WM2432HW / WM2032HS / WM2032HW / WM0532HW / WD-10210BD / WD-12210(5)BD



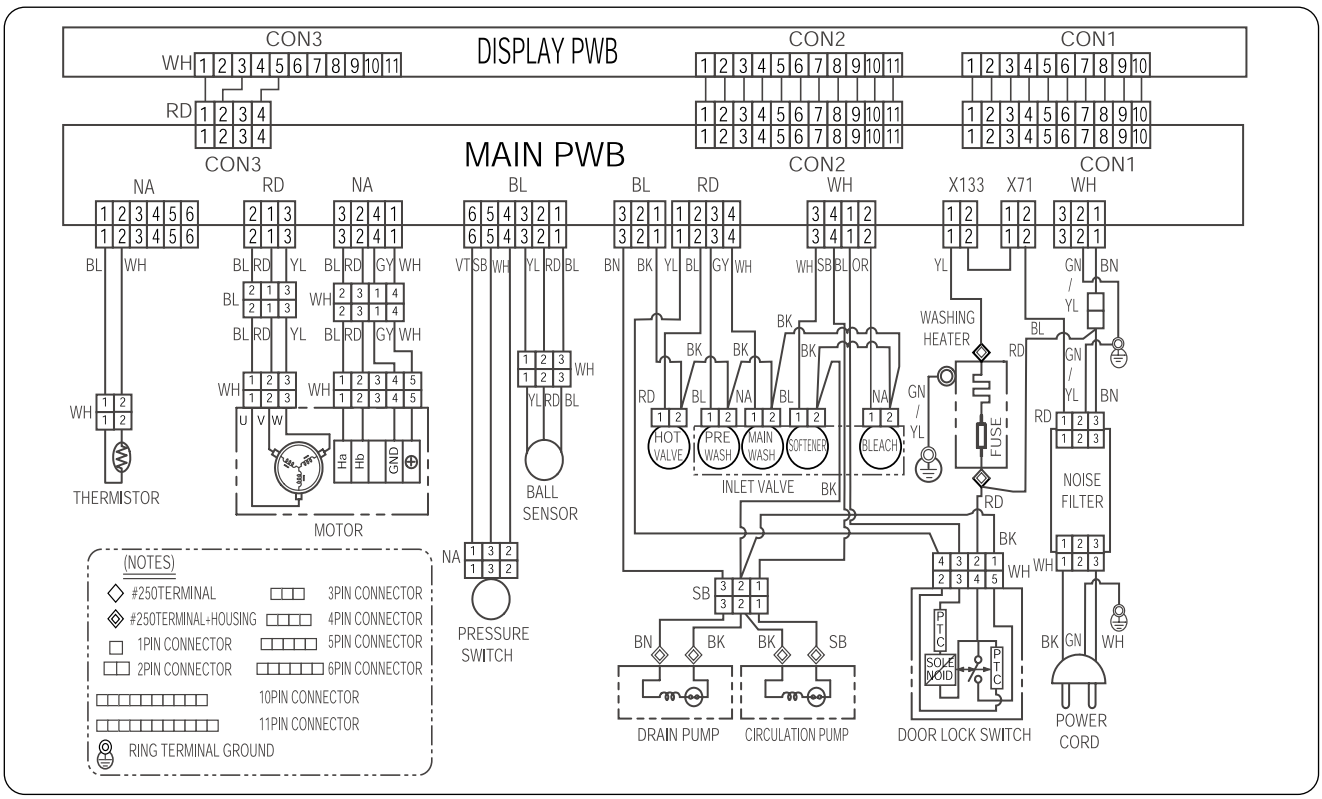
■ WM1811CW / WM1832CW



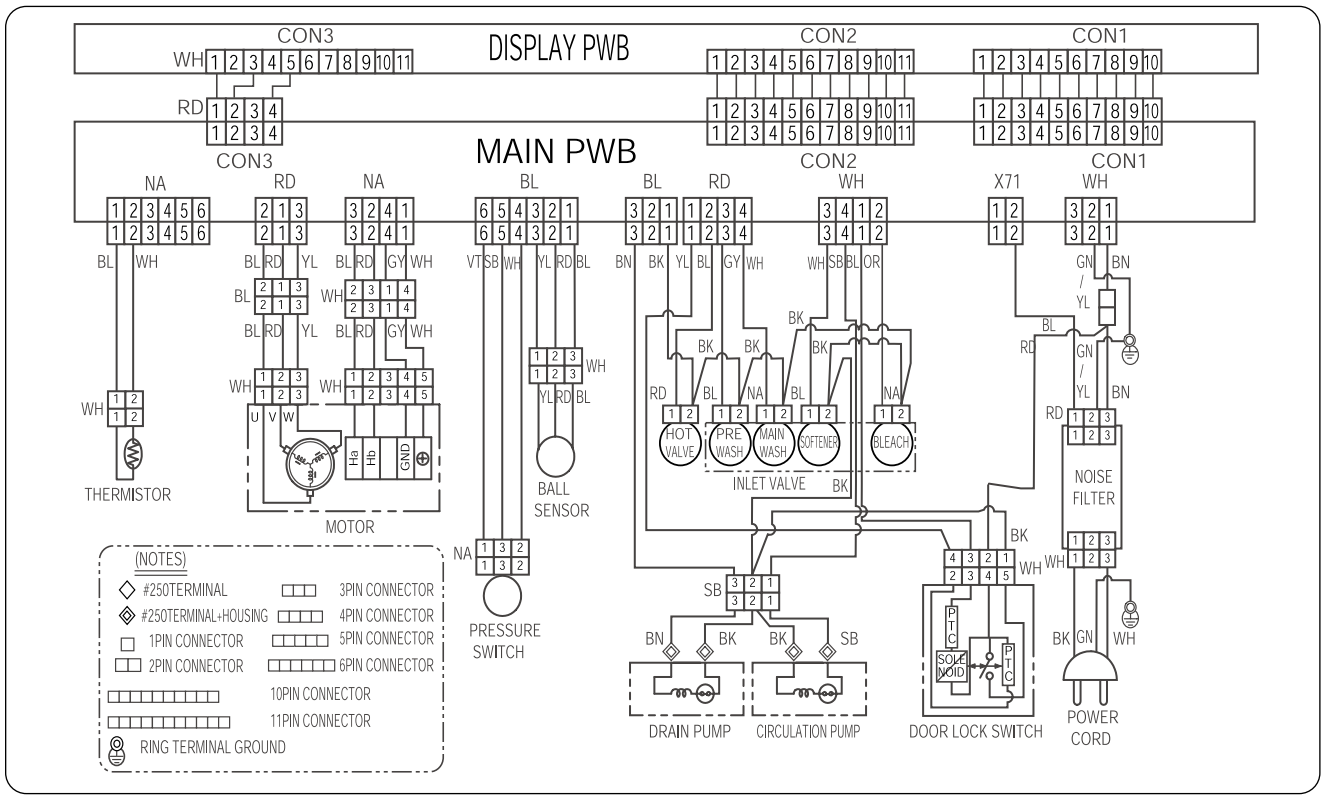
■ WM2444H*M



■ WM2442H*M/WM0642H*



■ WM2042CW


DISPLAY PWB
CON3
CON2
CON1
MAIN PWB
THERMISTOR
MOTOR
BALL SENSOR
PRESSURE SWITCH
INLET VALVE
HOT VALVE
PRE WASH
MAIN WASH
SOFTENER
BLEACH
DRAIN PUMP
CIRCULATION PUMP
DOOR LOCK SWITCH
NOISE FILTER
POWER CORD
(NOTES)
#250TERMINAL
#250TERMINAL+HOUSING
1PIN CONNECTOR
2PIN CONNECTOR
3PIN CONNECTOR
4PIN CONNECTOR
5PIN CONNECTOR
6PIN CONNECTOR
10PIN CONNECTOR
11PIN CONNECTOR
RING TERMINAL GROUND

PROGRAM CHART

* Water Supply : W·S　　* Intermittent Spin : I·S　　* Disentangle : D·T

COURSE / CYCLE STEP	Washing										Rinse																Spin			END	AUTO OFF	Normal Working Time (Hour:Minute)
	Pre				Main						Normal								Extra or Stain				Extra & Stain											
	W·S	Washing	Drain	I·S	W·S	Washing: Heating	Washing	Staycooling: W·S	Rinsing	Drain	1: Drain	1: I·S	1: W·S	1: Rinsing	2: Drain	2: I·S	2: W·S	2: Rinsing	3: Drain	3: I·S	3: W·S	3: Rinsing	3: Drain	3: I·S	3: W·S	3: Rinsing	Drain	Spin	D·T			
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	20	20	
Time (SEC)	60	MIN	60	300	60		MIN	60	60	60	60	300	60	240	60	300	60	240	60	300	60	240	60	300	60	240	60	120 ~ 540	120	20	20	
Sanitary		8					66	2 TIMES																								About 1:44
Cotton /Towels		8					19																									About 57
Normal		8					19																									About 56
Perm Press		8					17																									About 53
Delicates		8					13																									About 34
Wool/Silk							13																									About 34
Hand Wash							13																									About 34
Speed Wash							7							120				120				120										About 29
Drain+Spin																																About 12
Wash + Rinse		8					19																									About 45
Rinse + Spin																																About 29
Rinse																																About 18

* ▬▬ Basic Cycle
* ┈┈┈ Optional Cycle
* Pre-Setting Time : Water Supply - 60 sec.
Drain - 60 sec.

* Basic time is minute in washing chart.
* The actual program time can be varied with the load amount, water temperature or ambient temperature.

7. TROUBLESHOOTING

7-1. BEFORE PERFORMING SERVICE

■ Be careful of electric shock when disconnecting parts for while troubleshooting.

■ The voltage of each terminal is 120V AC and DC when the unit is plugged in.

7-2. QC TEST MODE.

The washer must be empty and the controls must be in the off state.

¤ Press the SPIN SPEED and SOIL LEVEL buttons simultaneously.

¤Ł Press the Power button, while the above condition. Then buzzer sound twice.

¤Ø In order to advance to the next step of test mode, press the START / PAUSE button once.

Number of times the Start/Pause button is pressed	Check Point	Display Status
None	Turns on all lamps and locks the door.	18:88 [1]
1 time	Tumble clockwise.	rpm (40~50)
2 times	Low speed Spin.	rpm
3 times	High speed Spin.	rpm
4 times	Inlet valve for prewash turns on.	Water level frequency (25~65)
5 times	Inlet valve for main wash turns on.	Water level frequency (25~65)
6 times	Inlet valve for hot water turns on.	Water level frequency (25~65)
7 times	Inlet valve for softener turns on.	Water level frequency (25~65)
8 times	Inlet valve for bleach turns on.	Water level frequency (25~65)
9 times	Tumble counterclockwise.	rpm (40~50)
10 times	Heater turns on for 3 sec.	Water temperature
11 times	Circulation pump turns on.	Water level frequency (25~65)
12 times	Drain pump turns on.	Water level frequency (25~65)
13 times	Power off and unlock the door.	Turn off all lamps.

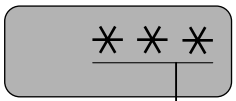
1) 18:8C WM2411HW / 18:9C WM2432HW WD-12210(5)BD

17:8C WM2011HS / WM2011HW / 17:9C WM2032HS / WM2032HW WM0532HW / WD-10210BD

15:8C WM1811CW / 15:9C WM1832CW

7-3. HOW TO CHECK THE WATER LEVEL FREQUENCY

* Press the SPIN SPEED and SOIL LEVEL button simultaneously.



● The digits indicate the water level frequency (x.1 kHz).

So, for example a display indicating 241 : a Water level frequency of 241 x.1 kHz
= 24.1 kHz

7-4. ERROR DISPLAY

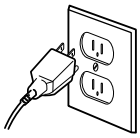
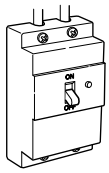
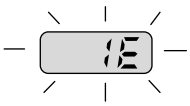
- If you press the START/PAUSE button when an error is displayed, any error except 『PE』 will disappear and the machine will go into the pause status.
- In case of 『PE』,『tE』,『dE』 if the error is not resolved within 20 sec., or the in case of other errors, if the error is not resolved within 4 min., power will be turned off automatically and the error code will blink. But in the case of 『FE』, power will not be turned off.

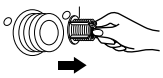
	ERROR	SYMPTOM	CAUSE
1	WATER INLET ERROR		• Correct water level (2 level) is not reached within 8 minutes after water is supplied or it does not reach the preset water level within 25 minutes.
2	IMBALANCE ERROR		• The load is too small. • The appliance is tilted. • Laundry is gathered to one side. • Non distributable things are put into the drum.
3	DRAIN ERROR		• Not fully drained within 10 minutes.
4	OVER FLOW ERROR		• Water is overflowing (over 8 level). ¡ If is displayed, the drain pump will operate to the drain water automatically.
5	PRESSURE SENSOR ERROR		• The SENSOR SWITCH ASSEMBLY is out of order.
6	DOOR OPEN ERROR		• Door not all the way closed. • Loose electrical connections at Door switch and PWB Assembly. • The DOOR SWITCH ASSEMBLY is out of order.
7	HEATING ERROR		• The THERMISTOR is out order.

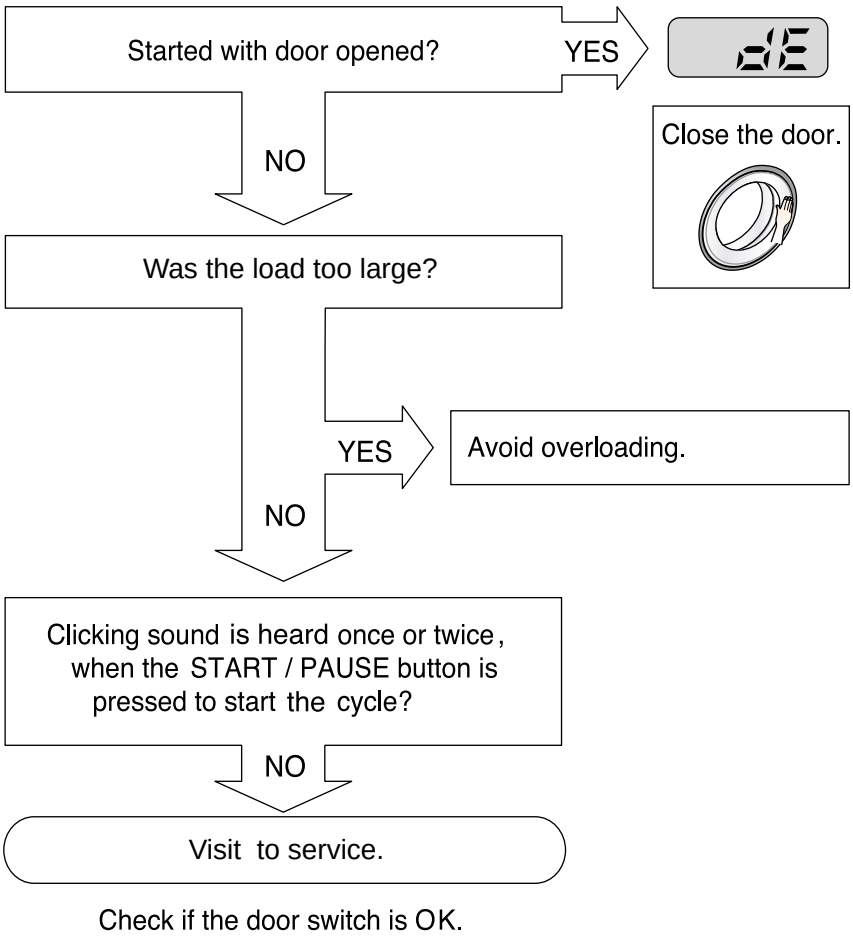
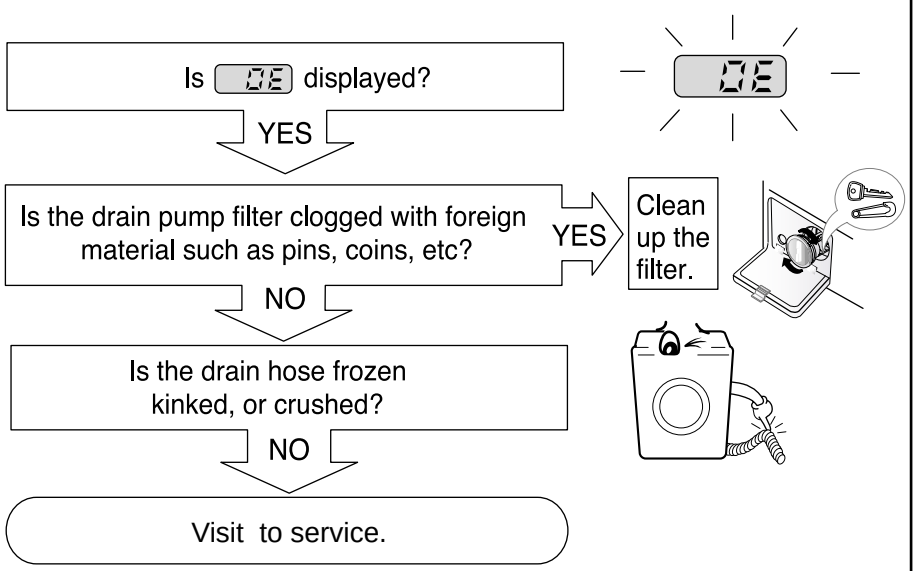
	ERROR	SYMPTOM	CAUSE
8	OVER CURRENT ERROR		• MAIN PWB ASSEMBLY is out of order. • Winding in the STATOR ASSEMBLY is short-circuited.
9	LOCKED MOTOR ERROR		• The connector (3-pin, male, white) in the MOTOR HARNESS is not connected to the connector (3-pin, female, white) of STATOR ASSEMBLY. • The electric contact between the connectors (3-pin, male, white) in the MOTOR HARNESS and 4-pin, female, white connector in the MAIN PWB ASSEMBLY is bad or unstable. • The MOTOR HARNESS between the STATOR ASSEMBLY and MAIN PWB ASSEMBLY is cut (open circuited). • The hall sensor is out of order/defective.
10	BALL SENSOR ERROR		• Loose Ball Sensor Connector. • Ball Sensor is out of order. ¡ Displayed only when the START / PAUSE button is first pressed in the QC Test Mode.
11	EEPROM ERROR		• EEPROM is out of order. ¡ Displayed only when the START / PAUSE button is first pressed in the QC Test Mode.
12	POWER FAILURE		• The washer experienced a power failure.

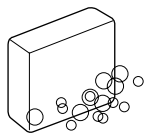
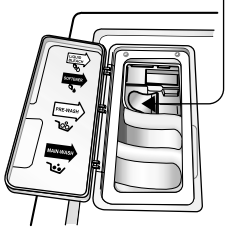
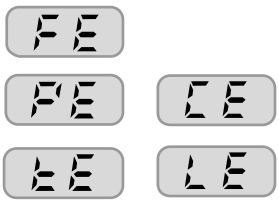
8. ERROR DIAGNOSIS AND CHECK LIST

8-1.DIAGNOSIS AND SOLUTION FOR ABNORMAL OPERATION

<table>
<tr><th>SYMPTOM</th><th>GUIDE FOR SERVICE CALL</th></tr>
<tr><td>No power</td><td>Is the power plug connected firmly to 120V AC outlet?
YES
Power failure? or Breaker opened?
Is the outlet controlled by a switch?
NO
Visit to service.
 
  </td></tr>
<tr><td>Water inlet trouble
 </td><td>Is 1E displayed?
YES
Is the tap opened?
YES
Is the tap frozen?
NO
Is the water supply shut-off?
NO
Is filter in the inlet valve clogged with foreign material?
YES
Clean the filter of inlet valve
NO
Visit to service.
 

  </td></tr>
</table>

SYMPTOM	GUIDE FOR SERVICE CALL
Door error 	 Check if the door switch is OK.
Drain trouble 	

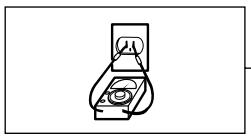
SYMPTOM	GUIDE FOR SERVICE CALL
Suds overflow from the appliance. (In this condition, wash and spin do not operate normally)	Is a low-sudsing detergent used? YES Is the proper amount of detergent used as recommended? YES Recommend to reduce the amount of detergent.  LOW-SUDSING ✳ This appliance has an automatic suds sensing function which prevents overflow. ✳ When excessive suds are sensed, the suds removing implementations such as drain, water input, pause will operate, without rotating the drum.
No softening effect	Is softener put in the correct compartment of the dispenser? YES Is the softener cap clogged? YES Explain proper use of softener. Clean the softener compartment Compartment for softener 
	Visit to service.

8-2.FAULT DIAGNOSIS AND TROUBLESHOOTING

⚠ CAUTION

1. Be careful of electric shock if disconnecting parts while troubleshooting.
2. First of all, check the connection of each electrical terminal with the wiring diagram.
3. If you replace the MAIN PWB ASSEMBLY, reinsert the connectors correctly.

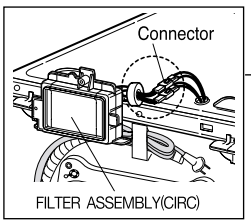
NO POWER



Is the supplied voltage 120V AC?

NO → Check the fuse or reset the circuit breaker.

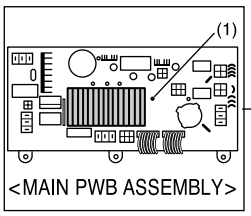
YES



Is the voltage between the 2 FILTER ASSEMBLY connectors 120V AC?

NO → Replace the FILTER ASSEMBLY (CIRC).

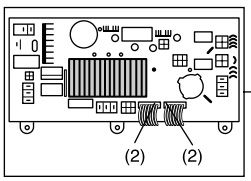
YES



Is the LED(1) on?

NO → Replace MAIN PWB ASSEMBLY.

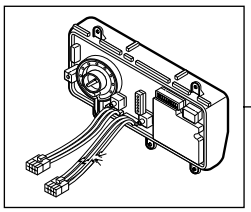
YES



Are the connectors(2) on the PWB loose?

YES → Reconnect.

NO



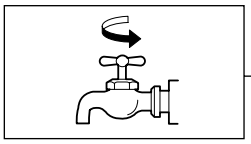
Is wire of the DISPLAY PWB ASSEMBLY broken?

NO → Replace the MAIN PWB ASSEMBLY.

YES

Replace DISPLAY PWB ASSEMBLY or repair wire.

NO WATER SUPPLY

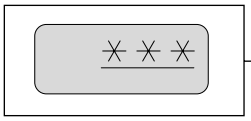


Is water supply shut-off?

NO

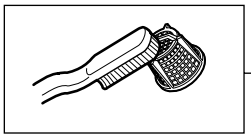
Is the tap opened? **NO** → Open the tap.

YES



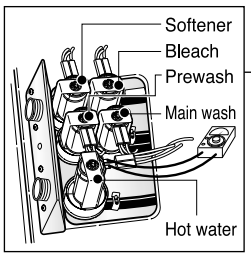
When you press both SPIN SPEED button and SOIL LEVEL button simultaneously, is the water level frequency below 246? **YES** → Check the AIR CHAMBER and the tube (clogged).

NO



Is the inlet valve filter clogged? **YES** → Clean the filter.

NO

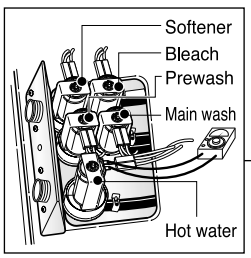


Is resistance between each terminal of INLET VALVE ASSEMBLY 0.8-1.2kΩ? **NO** → Replace the INLET VALVE ASSEMBLY.

YES

Verify the voltage of the inlet valve connector is 120V AC.
(Refer to 7-2 QC TEST MODE) **NO** → Check electrical connection. Replace the MAIN PWB ASSEMBLY.

DETERGENT DOES NOT FLOW IN

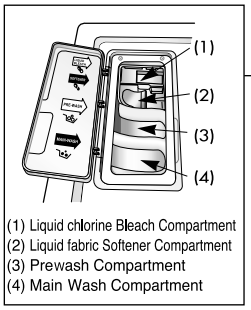


Is water supplied? **NO** → Refer to 「NO WATER SUPPLY」

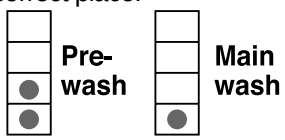
YES

Are receptacles correctly connected to the terminals of the INLET VALVE ASSEMBLY? **NO** → Check the wiring.

YES



Has detergent been put in the correct compartment of the dispenser? **NO** → Put the detergent in the correct place.

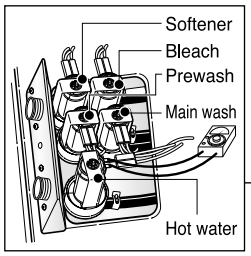


● : Detergent

YES

Is the detergent caked or hardened? **YES** → Clean the dispenser.

SOFTENER / BLEACH DOES NOT FLOW IN



Is water supplied?

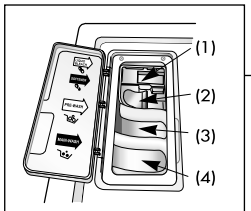
NO → Refer to 「NO WATER SUPPLY」

YES

Are the plugs correctly connected to the terminals of the INLET VALVE ASSEMBLY?

NO → Check the wiring on the dispenser.

YES

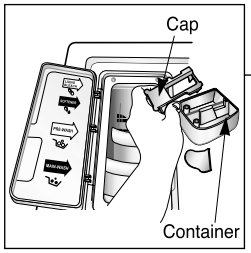


(1) Liquid chlorine Bleach Compartment
(2) Liquid fabric Softener Compartment
(3) Pre wash Compartment
(4) Main Wash Compartment

Is softener / bleach put in the correct compartment of the drawer?

NO → Put it in the correct compartment.

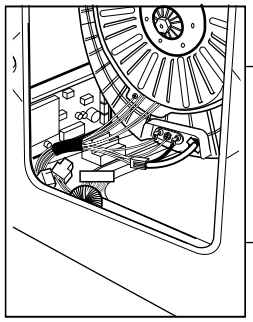
YES



Is the softener / bleach cap clogged?

YES → Clean the Cap and Container.

ABNORMAL SOUND



Is the motor bolt loosened?

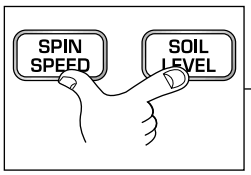
YES → Secure the bolt.

NO

Is there friction noise coming from the motor?

YES → Replace the STATOR ASSEMBLY or ROTOR ASSEMBLY.

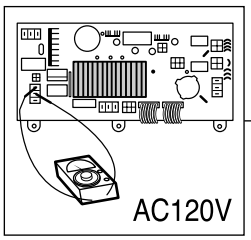
HEATING WITHOUT WATER



When pressing SPIN SPEED and SOIL LEVEL at the same time after draining, is the water level frequency 255?
When pressing SPIN SPEED and SOIL LEVEL buttons at the same time while wash, is the water level frequency between 230 - 243 ?

NO → Replace the SENSOR SWITCH ASSEMBLY.

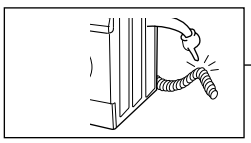
YES



Check the voltage between two pins while pressing the POWER button. Is the voltage 120V AC?

YES → Replace the MAIN PWB ASSEMBLY.

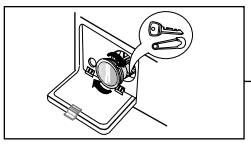
DRAIN MALFUNCTIONING



Is the drain hose twisted or frozen?

YES → Repair the DRAIN HOSE ASSEMBLY.

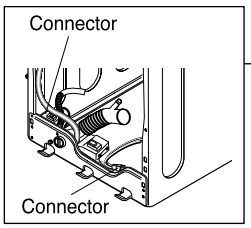
NO



Is the impeller of the drain pump clogged?

YES → Remove foreign material.

NO



Is the connector disconnected, disassembled?

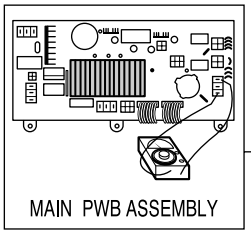
YES → Reconnect or repair the connector

NO

Is the coil of the drain pump too high or low? (resistance of coil is 10-20Ω)

YES → Replace the DRAIN PUMP ASSEMBLY.

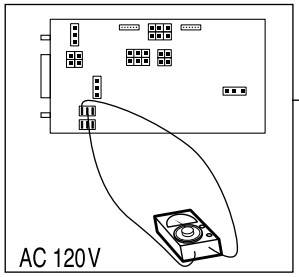
NO



When checking voltage between connectors during spin, is the voltage 120V AC as in the figure?

NO → Replace the MAIN PWB ASSEMBLY.

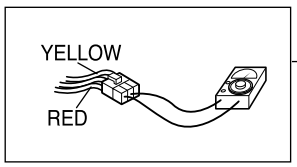
WASH HEATER TROUBLE



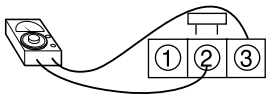
When checking the voltage between connector during whites washing.
Is the voltage 120V AC?

NO → Replace the MAIN PWB ASSEMBLY.

YES ↓

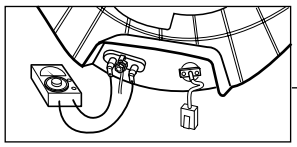


After power off, is the resistance of wire (RED-YELLOW) connectors between 10Ω - 30Ω?



YES → Normal

NO ↓



After power off and the heater terminal is disconnected, is the resistance 10-30Ω?

YES → Replace the PWB HARNESS.

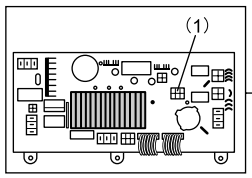
HEATING CONTINUOUSLY ABOVE THE SETTING WATER TEMPERATURE

When pressing WASH / RINSE,
is the displayed temperature over 10 °C higher than the selected temperature?

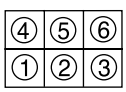
Hot : 50 °C
Warm : 40 °C
Cold : 30 °C

NO → Check if inlet hose is connected to a hot faucet ; otherwise, replace MAIN PWB ASSEMBLY.

YES ↓

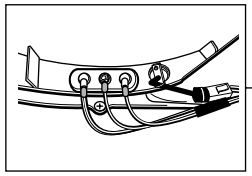


Is the resistance between ② and ③ of Connector (1) 2.5kΩ- 180kΩ ?



NO → Check electrical connection. Replace THERMISTOR.

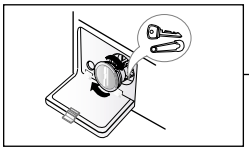
YES ↓



When checking the THERMISTOR on the tub, is the THERMISTOR loose?

YES → Push the THERMISTOR tightly to the rubber.

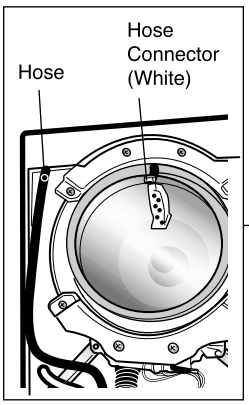
WILL NOT CIRCULATE WATER



Is the impeller of the drain pump clogged?

YES → Remove foreign material.

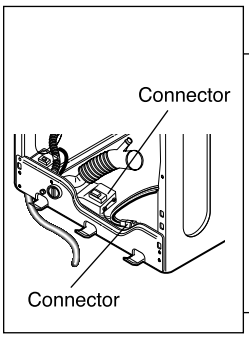
NO



Are the Hose Connector and/or Hose clogged?

YES → Remove foreign material.

NO



Is the connector disconnected, disassembled?

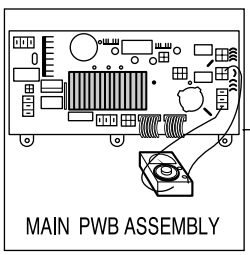
YES → Reconnect or repair the connector.

NO

Is the coil of the right side of drain pump open or short circuited? (Coil R is 18-30Ω)

YES → Replace PUMP MOTOR ASSEMBLY.

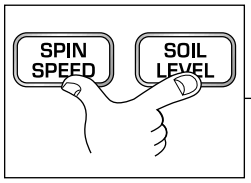
NO



When checking voltage between the connectors during spin, is the voltage 120V AC, as the figure?

NO → Replace the MAIN PWB ASSEMBLY.

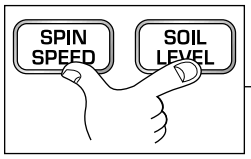
SPIN TROUBLE



Check during spin if the frequency of the water level is 248 or more.

NO → Check the SENSOR SWITCH ASSEMBLY or HOSE (Pressure). If the problem is on the SENSOR SWITCH ASSEMBLY or the HOSE, replace the SENSOR SWITCH ASSEMBLY or the HOSE.

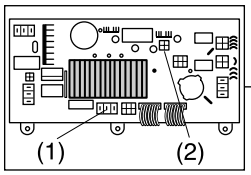
YES



Press the START/PAUSE button 2 times in QC Test mode, is the drum spinning at low speed?

YES → Normal

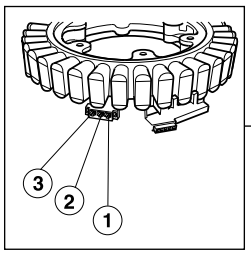
NO



Is it disconnected, or disassembled?
[Red:3pin (1), NA:4pin (2)]

YES → Correct the connection.

NO



Check the motor connector, Is the resistance of the terminal the same as the figure?

MOTOR TERMINAL

¥N	¥M	¥L

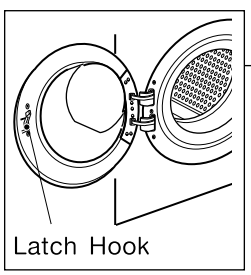
Resistance of terminal:
¥L-¥M / ¥M-¥N / ¥N-¥L : About 5Ω ~15Ω

NO → Replace the STATOR ASSEMBLY

YES

Replace the MAIN PWB ASSEMBLY

dE ERROR



Does the spring of Latch Hook actuate?

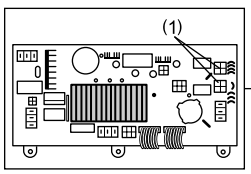
NO → Replace Door Assembly.

YES

Is there clicking sound once or twice when the START/PAUSE button is pressed to start the cycle?

NO → Check the DOOR SWITCH ASSEMBLY Connector and MAIN PWB ASSEMBLY (Red 4 pin and white 4 pin connector (1)).

YES



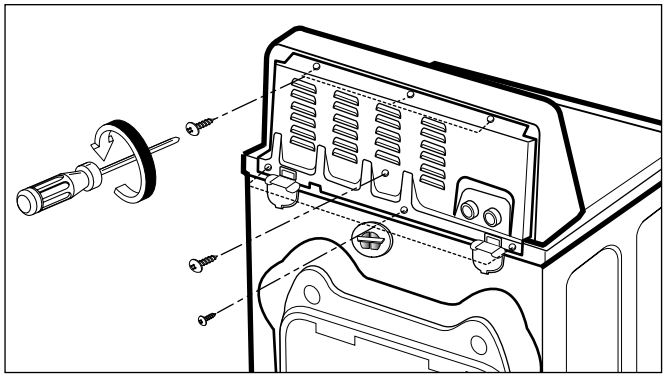
Is DOOR SWITCH ASSEMBLY broken?

YES → Replace the DOOR SWITCH ASSEMBLY.

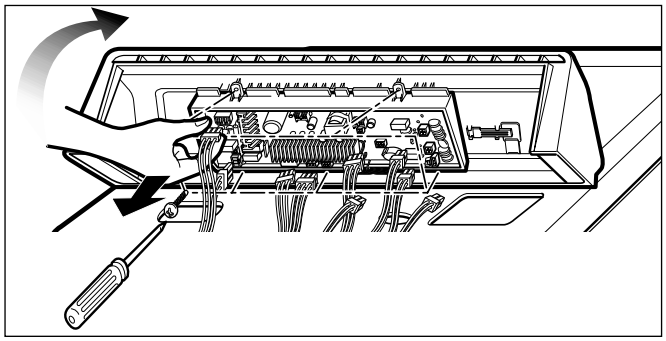
9. DISASSEMBLY INSTRUCTIONS

ƒR Disassemble and repair the unit only after pulling out power plug from the outlet.

CONTROL PANEL ASSEMBLY

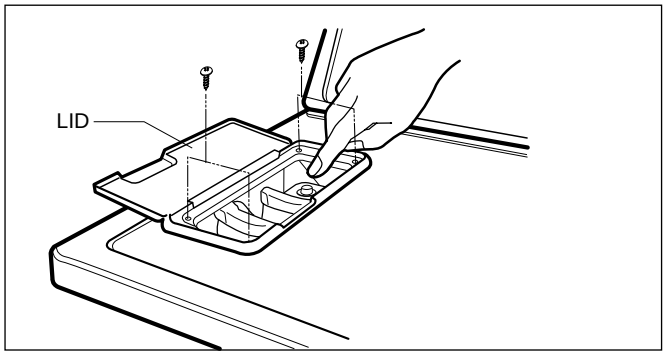


1. Unscrew 7 screws on the Rear Frame.
2. Disassemble the Rear Frame.

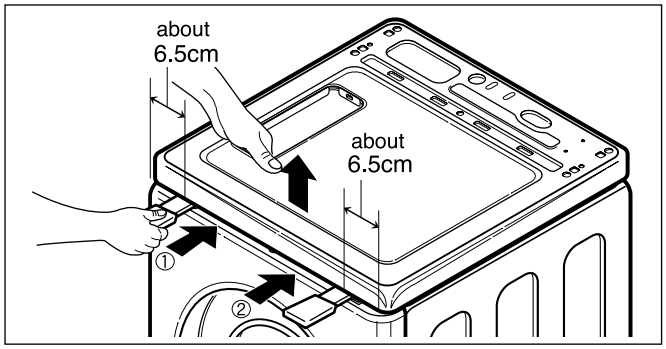


3. Pull the Control panel forward.
4. Disconnect connectors.
5. Unscrew 5 screws.
6. Disassemble the controller assembly.

TOP PLATE



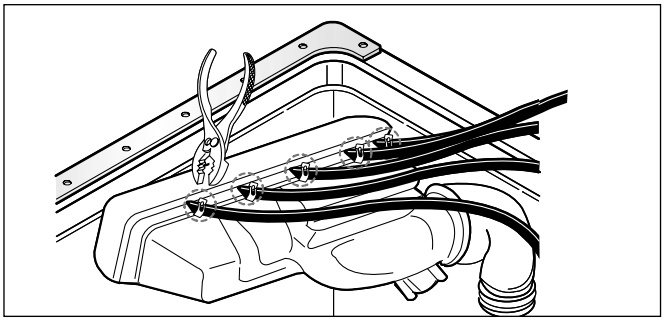
1. Open the Lid.
2. Unscrew 4 screws.
3. Disassemble the Lid Assembly.
4. Pull down the Dispenser by pushing hooks.



5. Put a hand into the dispenser hole and hold the top plate.
6. Push backward using an opener and lift the top plate.

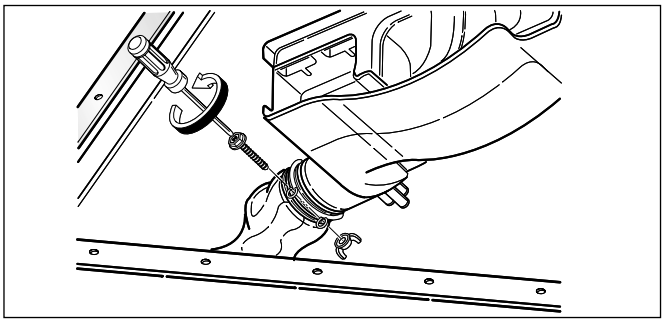
¡ Do first left side (¥L).

DISPENSER ASSEMBLY

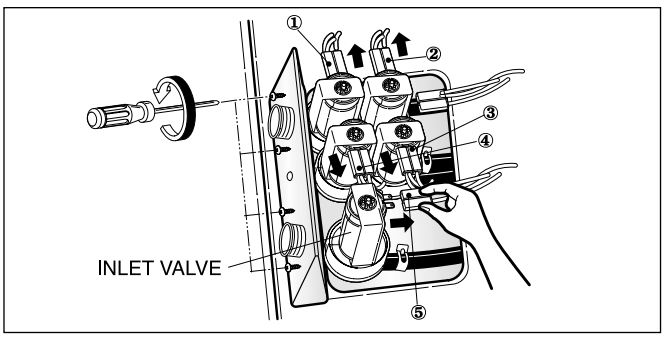


1. Disassemble the 5 hose clamps.

2. Release the 5 hoses.



3. Unscrew the nut at the lower part of the dispenser.

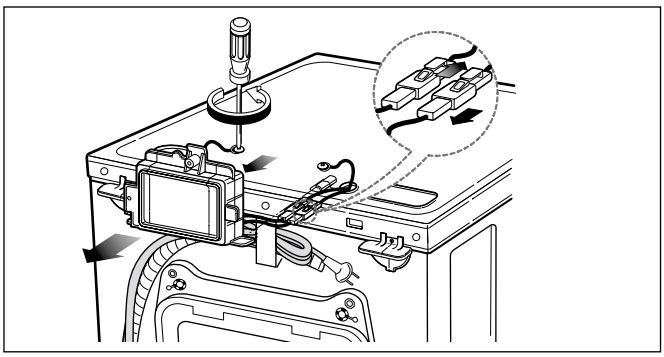


4. Unscrew the 4 screws on the holder.

5. Disassemble the 5 connectors from the valves.

¡ Wire color : ¥L WH-BK ¥M OR-BK
¥N WH-BK ¥0 GY-BK
¥P BL-BK

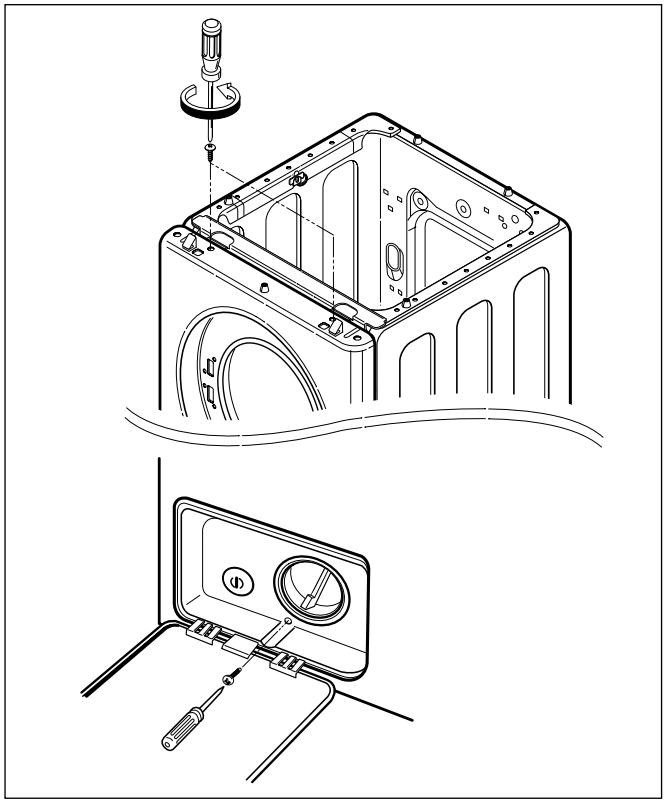
NOISE FILTER



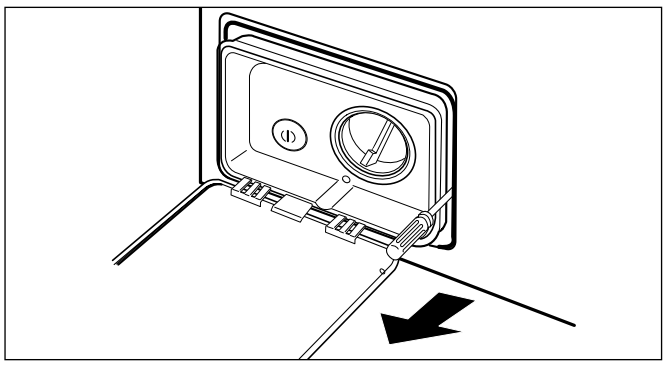
1. Unscrew the screw from the top plate.

2. Unplug the 2 connectors.

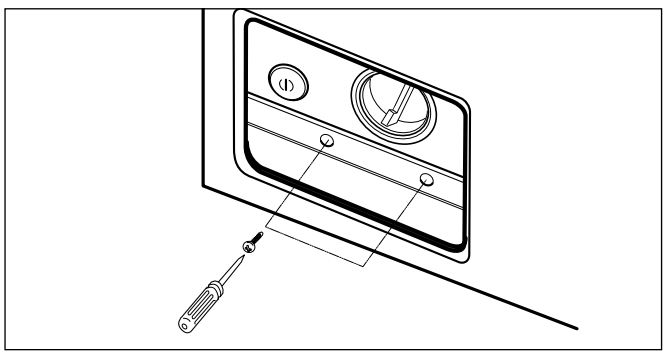
CABINET COVER



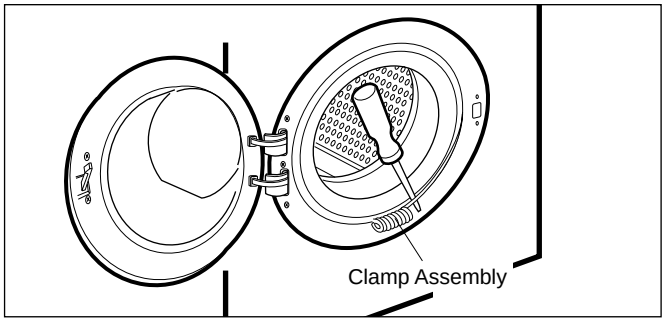
1. Unscrew the 2 screws from upper side of the cabinet cover.
2. Unscrew the screw from filter cover.



3. Put a flat (–) screwdriver into the both sides of the filter cover, and pull it out.



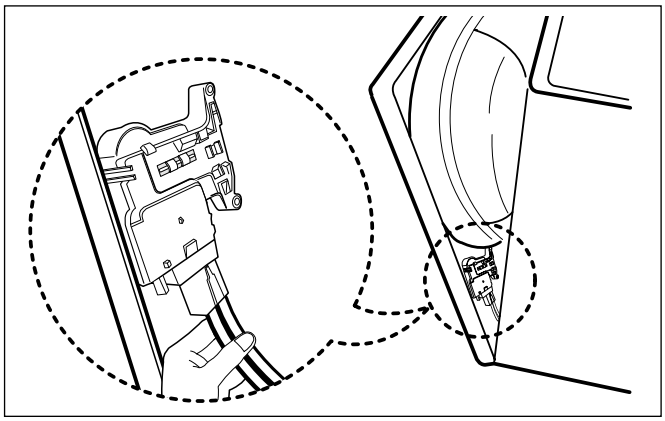
4. Unscrew the 2 screws from the lower side of the cabinet cover.



5. Open the door.

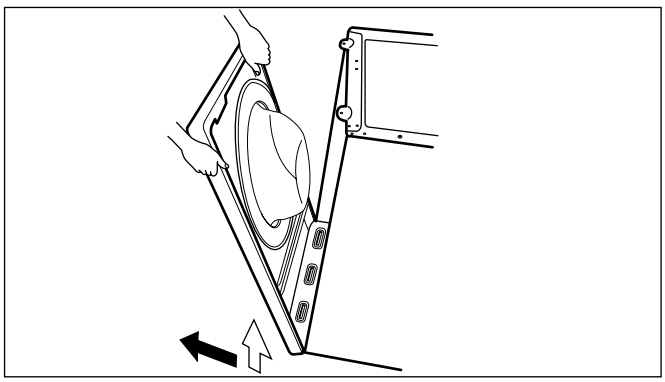
6. Disassemble the clamp assembly using a flat (–) screwdriver.

7. Separate the clamp assembly from cabinet cover.

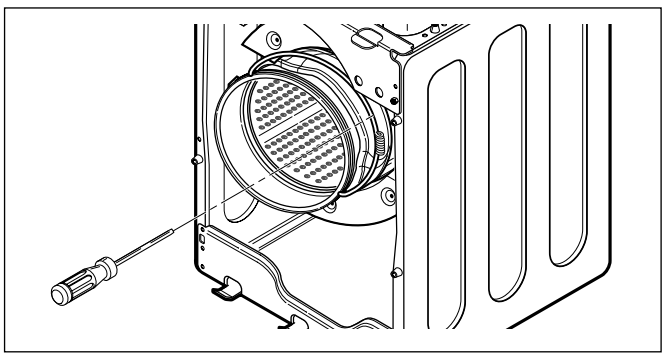


8. Tilt the cabinet cover.

9. Disconnect the door switch connector.



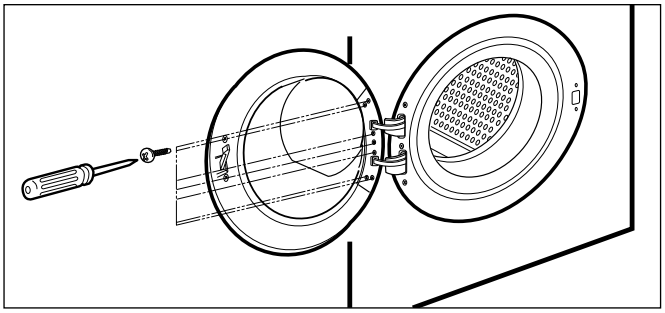
10. Lift and separate the cabinet cover.



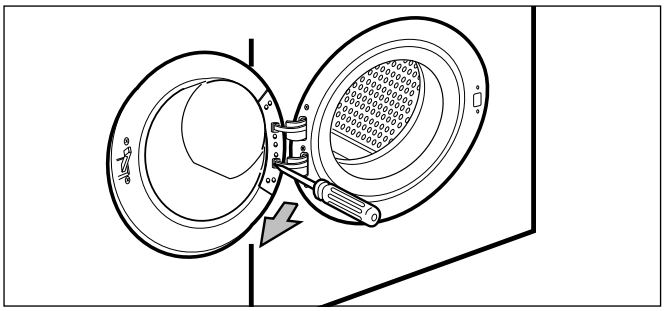
11. Disassemble the clamp assembly using a flat (–) screwdriver.

12. Disasemble the Gasket.

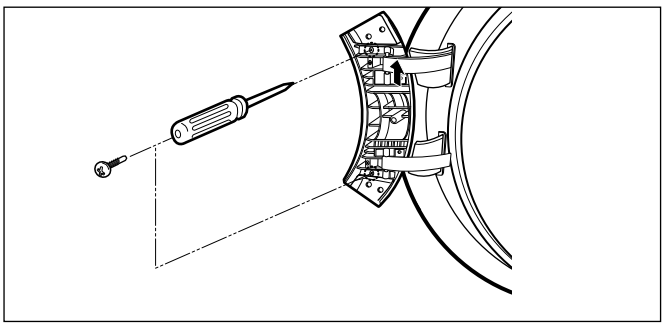
DOOR



1. Open the door.
2. Unscrew the 7 screws from the hinge cover.



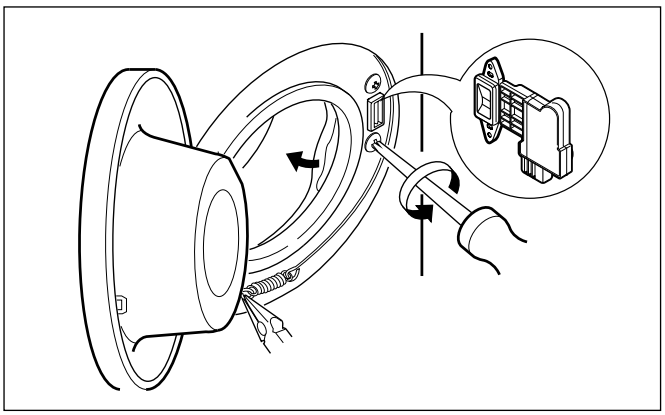
3. Put a flat (–) screwdriver into the opening of the hinge, and pull out the hinge cover.



4. Unscrew the screws from the door.
5. Disassemble the door upward / downward.

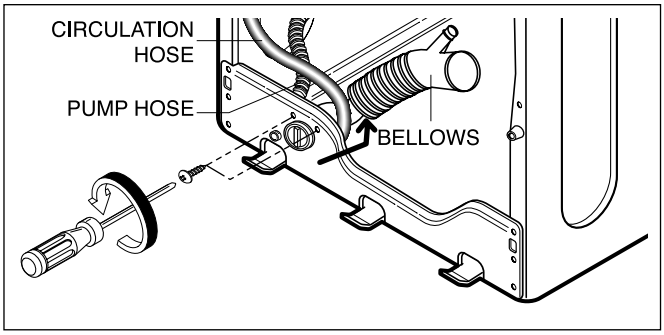
¡ Be careful ! The door is heavy.

DOOR SWITCH ASSEMBLY



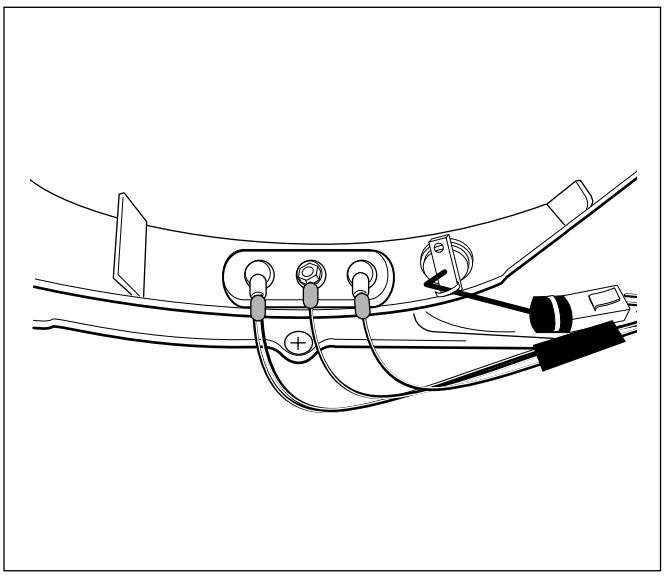
1. Open the door.
2. Disassemble the clamp assembly.
3. Unscrew the 2 screws from cabinet cover.

PUMP



1. Disassemble the cabinet cover.
2. Separate the pump hose, the bellows and the circulation hose assembly from the pump assembly.
3. Disassemble the pump assembly in arrow direction.

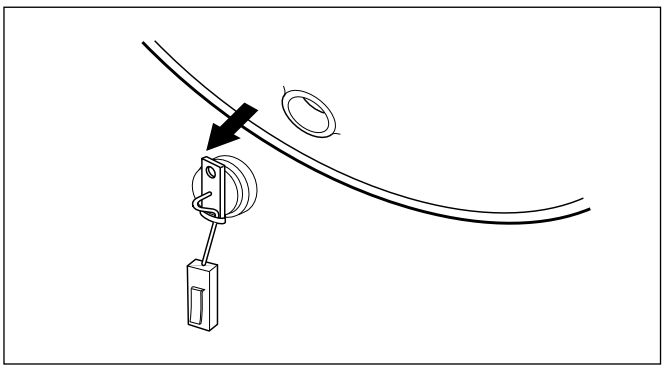
HEATER



1. Disassemble the cabinet cover.
2. Separate 2 connectors from the heater.
3. Loose the nut and pull out the heater.

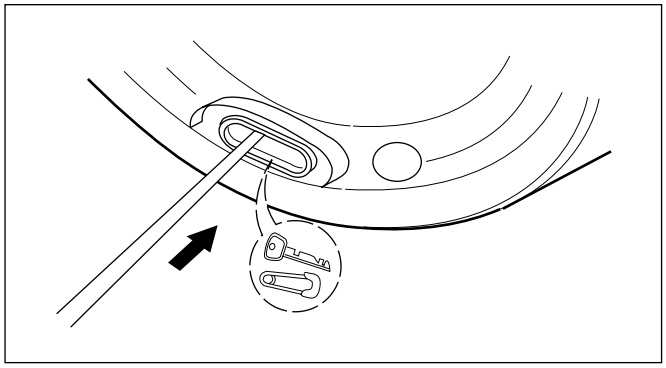
⚠ *CAUTION*
- When assembling the heater, insert the heater into heater clip on the bottom of the tub.
- Tighten the fastening nut so the heater is secure.

THERMISTOR



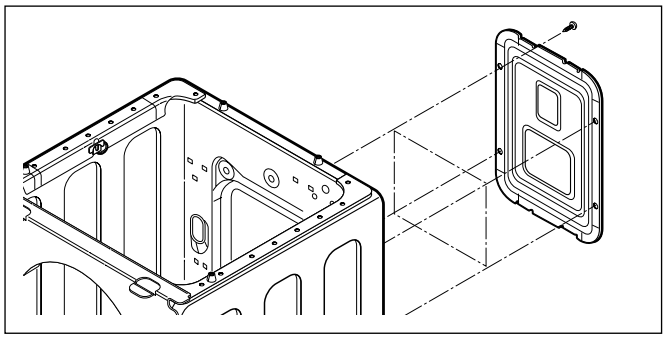
1. Disassemble the cabinet cover.
2. Unplug the white connector from the thermistor.
3. Pull it out by holding the bracket of thermistor.

WHEN FOREIGN OBJECT IS STUCK BETWEEN DRUM AND TUB

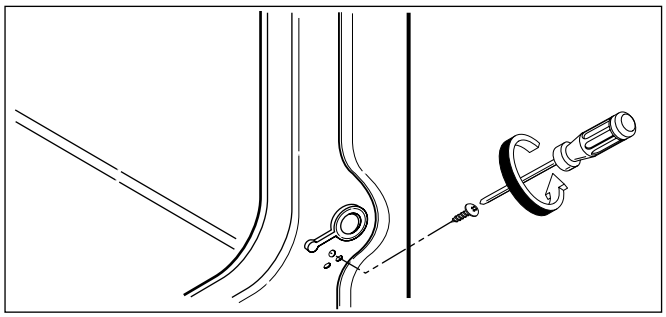


1. Disassemble the cabinet cover.
2. Separate the heater from the tub.
3. Remove any foreign objects (wire, coin, etc.) by inserting a long bar in the opening.

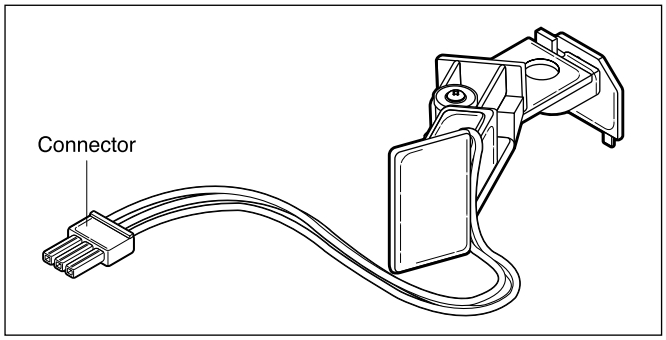
SENSOR ASSEMBLY(BALL SENSOR)



1. Unscrew the 4 screws from the back cover.

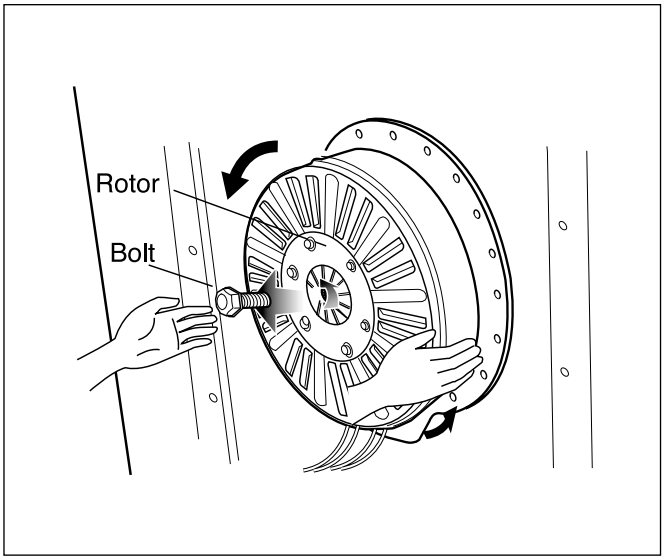


2. Unscrew the single screw from the lower-right side of the cabinet.

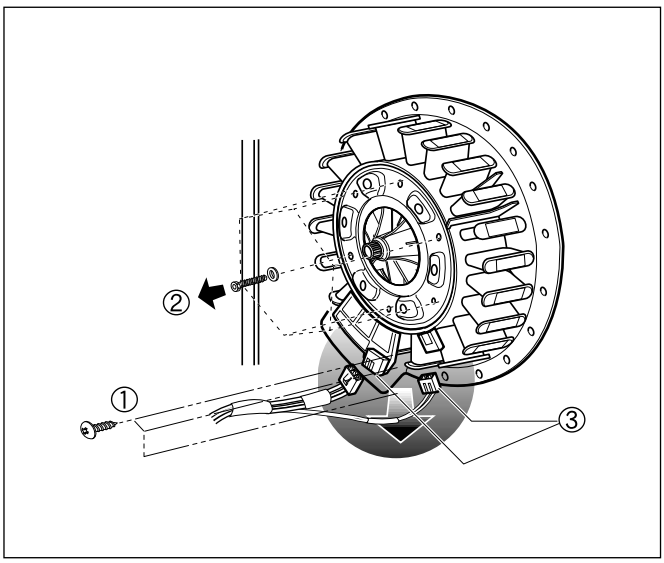


3. Disconnect the connector from PWB Harness.

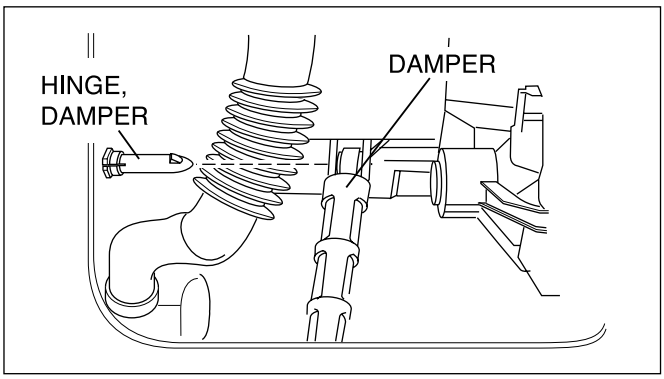
MOTOR / DAMPER



1. Disassemble the back cover.
2. Loosen the bolt.
3. Pull out the Rotor.



4. Unscrew the 2 screws from the tub bracket.
5. Loosen the 6 bolts on the stator.
6. Unplug the 2 connectors from the stator.

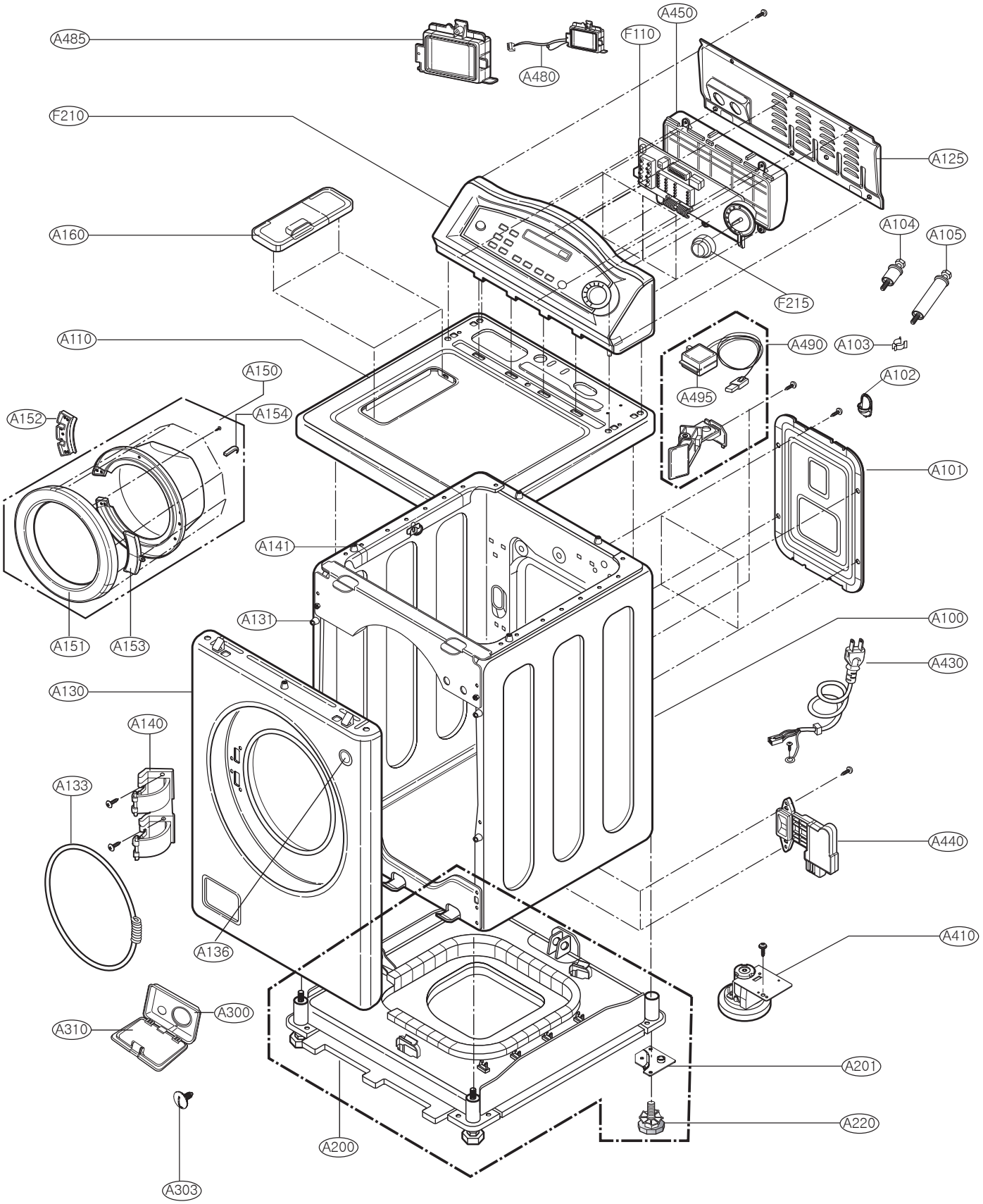


1. Disassemble the damper hinges from the tub and base.
2. Separate the dampers.

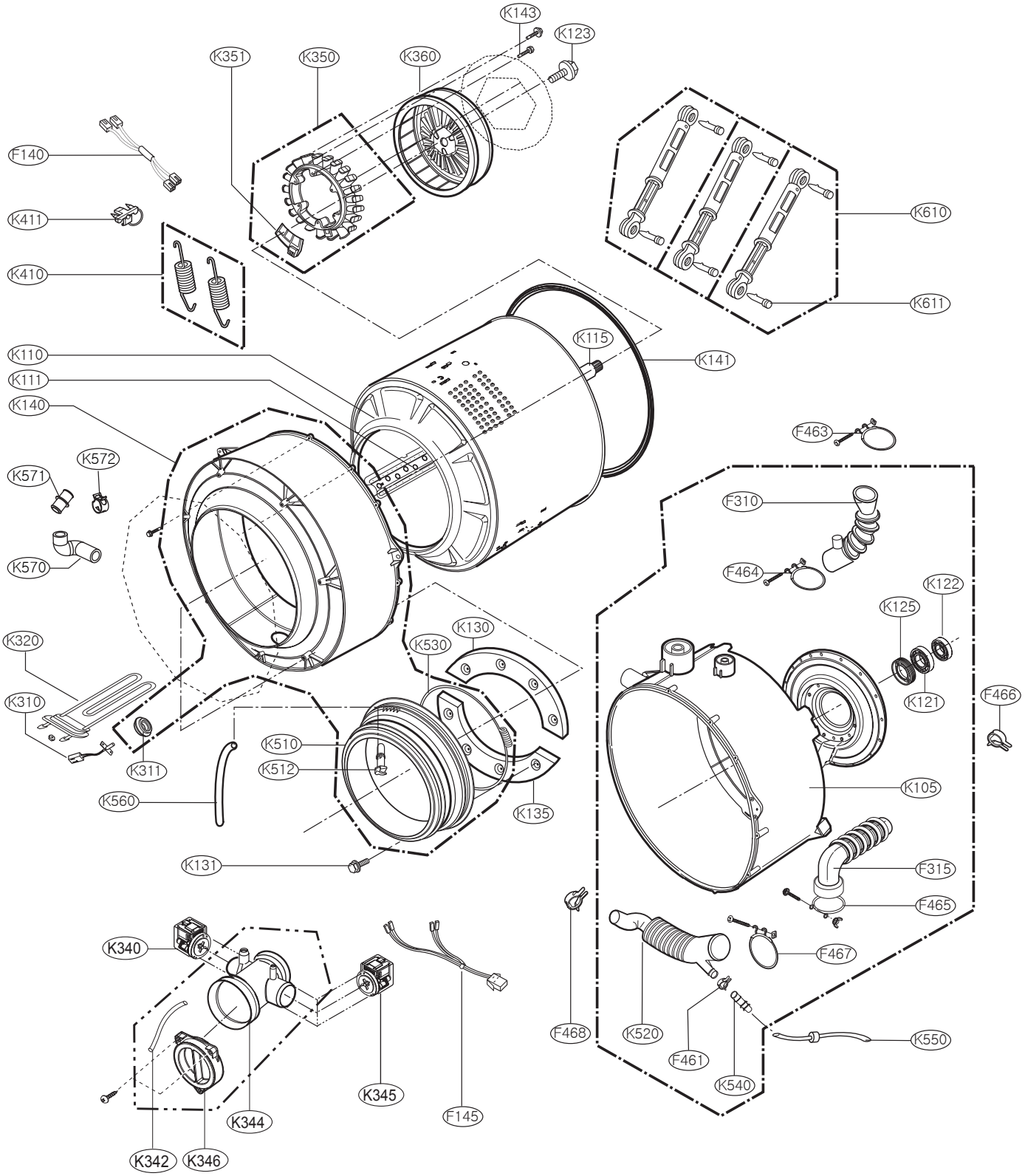
※ NOTE
- Once removed, replace the damper pin with new one.

10. EXPLODED VIEW

10-1. CABINET & CONTROL PANEL ASSEMBLY



10-2.DRUM & TUB ASSEMBLY



10-3. DISPENSER ASSEMBLY